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NAME OF AUTHOR/*NOM DE L'AUTEUR* Donna Joy Harrison

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NAME OF SUPERVISOR/*NOM DU DIRECTEUR DE THÈSE* Dr Ann Hall

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THE UNIVERSITY OF ALBERTA

THE PERCEIVED IMAGE OF THE FEMALE ATHLETE IN RELATION TO OTHER FEMALE SOCIAL ROLES

by

© Donna J. Harrison

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE

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IN

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FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled The Perceived Image of the Female Athlete in Relation to Other Female Social Roles submitted by Donna J. Harrison in partial fulfilment of the requirements for the degree of Master of Arts in Physical Education.

.....
Supervisor

.....

.....

Date August 22, 1978...

ABSTRACT

The purpose of this study was to determine how grade six, grade eleven, first year physical education, education, and vocational students perceived the following female social roles: THE FEMALE ATHLETE, THE FEMALE GYMNAST, THE FEMALE NURSE, THE FEMALE SWIMMER, THE FEMALE LAWYER, and THE FEMALE SHOT PUTTER; and to ascertain whether their perceptions were associated with their sex, group, sport involvement or psychological androgyny.

The instruments used in this study were the semantic differential, the Bem Sex Role Inventory, and relevant questions on the intensity and duration of sport involvement from Kenyon and McPherson (1968), Hall (1974), and Richardson (1974).

Results indicated that the sample perceived significant differences between the roles and viewed them all in a favorable manner. The role of nurse was perceived as the most favored followed by the gymnast, the athlete, the swimmer, the lawyer, and the shot putter. Significant differences by sex, and, by group, were found in the perception of these roles. On the other hand, the subjects' psychological androgyny or their degree of sport involvement did not significantly affect the way in which they perceived the female roles. Furthermore, no significant relationship was found between the subjects' psychological androgyny and their degree of sport involvement.

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CHAPTER I

INTRODUCTION

During the socialization process, children learn the appropriate behaviors and attitudes expected of their respective gender. Even before they enter school, most children have a fairly distinct impression of which toys, behaviors and interests are "male" and "female". During childhood and adolescence, such socializing agents as the family, educational institutions and the mass media contribute to the shaping of behaviors along different lines for males and females. Furthermore, as adolescents approach their adult roles, these socializing agents continue to emphasize the socially acceptable roles for male and female endeavor. Roles that are accepted and encouraged by society are thus considered to be traditional roles. Traditionally female roles include teaching, nursing, and social work and traditionally male roles are in the fields of law, medicine and science. Concurrent with these role expectations, stereotyped images of "masculinity" and "femininity" have evolved. There are certain traits which are commonly associated with traditional male roles, such as ambition, aggressiveness, and independence. On the other hand, the image of "femininity" has traditionally been that of nurturance, obedience and passivity.

Involvement in sport or organized, competitive physical activity has traditionally and primarily been a male endeavor and thus the role of the female athlete has

been viewed less favorably than other female roles (Brown, 1965; Griffin, 1972; Berlin, 1973). But recently, the division between male and female roles has become less marked, therefore new and varied role choices are open to males and females. Females, in greater numbers, are entering new careers, ones which have been traditionally considered as primarily male roles.

A general concern with the restrictive nature of traditional gender roles has not only prompted the partial elimination of dichotomizing gender roles, but also has precipitated a push towards psychological androgyny. Psychological androgyny is an equal endorsement of both traditionally masculine and feminine personality characteristics. Such a personality orientation would allow individuals to feel free to express the best attributes of men and women, and consequently further put an end to stereotyped roles and images (Bem, 1976).

Due to expanding role choices for men and women and a push towards psychological androgyny, society is in a state of flux concerning appropriate and inappropriate roles and accompanying images for males and females. Thus, the current image of the female athlete and other female social roles, traditional and non-traditional, are also unclear and require clarification.

Purpose of the Study

The purpose of this study was to determine how grade six, grade eleven, first year physical education, first year

education, and first year vocational students perceived certain female social roles; and to ascertain whether their perceptions were associated with their sex, group, sport involvement or tendency towards psychological androgyny.

Specifically, this study was directed towards answering the following research questions:

1. Is there a significant difference in the perception the total sample has of the following female roles: THE FEMALE ATHLETE, THE FEMALE SWIMMER, THE FEMALE NURSE, THE FEMALE GYMNAST, THE FEMALE LAWYER, and THE FEMALE SHOT PUTTER.
2. How do males and females perceive these female roles?
3. How do grade six, grade eleven, first year physical education, education, and vocational students perceive these selected female roles?
4. Is there a significant difference, by group, or, by sex, in the perception of these female roles?
5. Is there a significant relationship between the subjects' psychological androgyny and how they perceive these female roles?
6. Does the subjects' degree of sport involvement significantly affect their perception of these female roles?
7. Is there a significant relationship between the subjects' psychological androgyny and their degree of sport involvement?

Significance of the Study

A review of the research to date concerning the image of the female athlete presents a number of inconsistencies. There is no doubt that traditional female roles are being replaced by new role choices for women, but whether or not the role of female athlete is perceived as favorably as other female social roles is subject to question. Thus, further

investigation is necessary in order to clarify and assess the current image of the female athlete and of other female roles.

Accompanying a general concern with gender roles, there is a strong suggestion for the removal of gender role stereotypes and a push towards a more androgynous personality, a personality which includes both masculine and feminine personality characteristics. The measurement of psychological androgyny is a relatively new phenomenon and its association with sport has not been pursued to any great extent. Therefore, a facet of this study was to determine if there was a relationship between psychological androgyny and the perception of female roles, as well as the relationship between psychological androgyny and degree of sport involvement.

The findings to date seem to indicate that the more "feminine" sports (e.g. gymnastics, figure skating, diving) are more socially acceptable for female participation. Recently though, the public has been exposed to increased and varied coverage by the media of female participation in a number of traditionally male sports (e.g. horse-racing, race car driving, softball, boxing). Even with this increased and varied exposure of female sports participation, it is still uncertain whether or not the public has a more favorable image of some female athletes than of others. Therefore, another component of this study was to examine the perceived images of different types of female athletes.

A number of factors, such as sex, age, nationality, socio-economic status, education, affect the way in which people perceive things. These factors must be identified and explored in order to grasp a clear understanding of why people perceive in the manner they do. Thus, this study intended to examine psychological androgyny, age, sex, and degree of sport involvement as possible factors which affect the perception of female social roles.

Limitations and Delimitations

The study was delimited to grade six, grade eleven, first year physical education, education, and vocational students from Edmonton, Alberta. Thus, the researcher was limited by the inability to generalize outside these particular groups.

Due to the lower word comprehension level of the grade six students, the researcher was limited in the choice of adjective pairs that were to be included in the semantic differential.

Definition of Terms

Psychological androgyny: the equal endorsement of both masculine and feminine personality characteristics (Bem, 1976).

Perceived image: a measure obtained from responses to the semantic differential.

Degree of sport involvement: a measure ascertained from responses to questions taken from Kenyon and McPherson (1968), Hall (1974), and Richardson (1974).

Stereotype: a fixed or conventional notion or conception, as of a person, group, idea, held by a number of people and allowing for no individuality (Webster's New World Dictionary, 1974).

CHAPTER II

REVIEW OF RELATED LITERATURE

Males and females are expected to fill certain roles that society has deemed acceptable and appropriate for their sex. Traditionally, socially acceptable female roles have included teacher, nurse, and social worker. Concurrent with these accepted roles are stereotyped female images: the female is characterized as being dependent, affectionate, and understanding. On the other hand, appropriate male roles include lawyer, doctor and engineer, roles which necessitate aggressiveness, independence and competitiveness.

Athletic or sport involvement has traditionally and primarily been a male pursuit, an avenue for male endeavor which has been socially accepted and encouraged (Harris, 1971; Hart, 1974; Scott, 1974). Consequently, female sport involvement and female sport roles have been viewed less favorably than other female roles (Brown, 1965; Griffin, 1972; Hall, 1972; Berlin, 1973; LeGrand, 1975; McCullough, 1976).

In recent years, increased attention has been given to the restrictive nature of dichotomizing roles. Both males and females have begun to break away from these stereotyped roles and are entering roles that have not been traditionally acceptable for their sex. Therefore, researchers have taken an interest in the public's attitude towards female athletic roles and athletic competition for girls and women, both of which at one time, and in many ways still are not acceptable

for females. It is the purpose of this chapter to review briefly the literature that concerns itself with the image of the female athlete and attitudes toward female sport participation.

The concepts of "athletic woman" and "ideal woman" appear to be in conflict with one another. Berlin's (1973) study reinforces the belief that people in general tend to view the images of ideal woman and the female athlete as mutually exclusive. Her results indicated that the ideal woman was perceived by selected college students as well-liked, good natured, friendly and one who is attracted to a wide variety of people. On the other hand, the athletic woman was described as aggressive, enthusiastic, determined and persistent.

Griffin's (1972) study showed similar results. Her study focussed on the perceived images of six women's roles: housewife, woman athlete, girlfriend, woman professor, mother and ideal woman. Griffin's results indicated that these roles were perceived as distinct and separate concepts, quite different from each other in terms of the three dimensions of meaning (evaluative, potency, activity) of the semantic differential. More specifically, her sample of college students perceived the ideal woman as being the most favored and preferred role whereas the woman athlete was the least favored and preferred role.

Hall's (1972) study focussed on the concepts of a "feminine woman" and an "athletic woman". The feminine

woman was thought to be graceful, attractive, gentle, emotionally dependent, submissive, and easily influenced by others. The athletic woman was perceived as less "feminine" and more "masculine", and viewed less favorably than the feminine woman.

The findings of Brown's (1965) study are consistent with those of Griffin, Hall, and Berlin. Once again, the semantic differential was the instrument used to obtain the perceived images of certain female roles. Brown included several sport roles (swimmer, tennis player, basketball player, track player) and found them all to be rated low to moderate on the evaluative dimension, thus indicating a not so favorable attitude. On the other hand, a "feminine girl" was rated high, thus showing that this was the most favored and preferred role. Such a rating discrepancy seems to indicate that the sport roles are incompatible with a feminine girl, a finding that is consistent with other research.

Critcher (1974) believes that the negative image of female athletes is a consequence of the cultural values associated with sport. He outlines these values as being competitiveness, victory, aggression, training, and dedication. The values expressed by most sporting activities are those which demand the psychological orientation that society has deemed appropriate for men and rarely for women. Critcher elaborates as follows:

> Men are great competitors in society;

> women do compete with each other as sex objects, wives and mothers...The men are really pushy. Self assertion over others is a more masculine trait, as is ambition. Women can be ambitious, but generally so for others, often significantly for their families. Aggression is expected of a man, not of a woman...Training and dedication are not only expected of a man at work and in education, but are possible for him. The woman as wife and mother can scarcely find the time for such training and conditioning and even if she does, it may be suggested directly or not that she is failing in her primary duties as wife and as mother.

Thus the attributes necessary to be successful in sport are those which society considers male traits. Consequently, the female athlete is subject to two kinds of discrimination: she may not be taken seriously as an athlete and some may question her femininity. Therefore, it becomes apparent that women in sport face a great deal of psychological and social pressure. According to Klein (1950) a woman faces a real dilemma. If she succeeds, she may risk her femininity and societal acceptance. On the other hand, if she fails in her pursuit of sporting excellence by giving it up, she may experience a personal defeat of goals, desires and aspirations. DeBacy and Spaeth (1970) state their belief that women are having to examine the situation both internally and externally. Internally women are trying to determine the degree of congruence between roles that have been culturally assigned, and their own personal desires for athletic pursuit. Externally women must also decide whether or not to expand their role responsibilities, providing society is willing

for them to do so.

The relevant literature suggests then that a female who actively pursues her athletic interests in ways that supposedly detract from her femininity is not likely to be congratulated or encouraged in her sporting desire. In fact, she is more likely to be subjected to societal pressures and some doubt may be cast upon her womanhood. This being the case, it is necessary to investigate the options open to women who wish to involve themselves seriously in sports competition but often face social stigma and jeopardize their feminine image. Griffin's (1973) study focussed on how female physical educators faced these problems. Griffin felt that women have three choices: 1) ignore the stereotyped molds deemed as "appropriate" feminine behavior and "do their own thing"; 2) conform to the stereotypes at the possible risk of personal defeat; or 3) adopt behavior that is appropriate to the situation.

In fact, Harris' (1971) findings lend credence to this third choice. Her study concerned itself with how female athletes perceived themselves in social and in competitive situations. Harris had the following to say about her results:

> These findings suggest that there is indeed a Dr. Jekyll-Mr. Hyde type personality operating among females who also happen to be involved in competitive athletic endeavors. It appears that the female must assume the socially acceptable role for the female in social situations. At the same time, if she desires to be successful in athletic competition,

> she must become more aggressive, dominant, achievement-oriented and demonstrate more toughmindedness and endurance and be less afraid to take risks. These are the characteristics that are most often used to describe masculinity.

The results of a recent study by McCullough (1976) may be an indication of the current state of flux that presently exists concerning women's roles. McCullough examined the perception of femininity in the following eight female roles: ideal woman, mother, housewife, hostess, sister, working woman, self, and athlete. Contrary to other findings, she found that the female athlete was the closest role to the ideal woman in demonstrating feminine characteristics. Since the female athlete was rated second to the ideal woman on the evaluative dimension, the attitudes toward the female athlete were highly favorable. One hopes that such contrary findings are due to societal changes rather than, as McCullough suggests, the geographical location of the study. Since the study took place in California where the climate and topographic characteristics favor year-round and extensive sport participation by individuals, the idea of an active woman or female athlete may certainly be a viable model for women.

The results of LeGrand's (1975) study certainly point towards changes in society's view of the female athlete. Using the semantic differential, LeGrand examined the perceptions of 200 grade nine, ten, eleven, and twelve students to the following concepts: "female athlete",

"student", "friend", "ideal young female", "worker", and "cheerleader". All concepts were viewed favorably by the total sample but ideal female, cheerleader, female athlete, and student were more favored than friend and worker. The results also showed no significant difference between the highly favored concepts cheerleader and female athlete.

Furthermore, Vickers (1976) investigated the perceptions of male and female students at the grade seven, ten, and university levels towards the concepts "male", "male athlete", "female", "female athlete". Using the semantic differential as the test instrument, her results indicated an order of hierarchy that placed the concept "female athlete" in the most favored position followed by the concepts "female", "male athlete", and "male". In addition, T-tests for significance of the difference between concept means showed no significant differences between the concepts "female athlete" and "female".

Studies which have examined the effect of sports involvement or participation on the perception of the female athlete or of their sports' involvement have been inconsistent and contradictory. Kingsley, Brown and Seibert (1977) surveyed the responses of college women, 120 athletes and 120 non-athletes, to four female biographical sketches: a high-success aspiration softball player, a low-success aspiration softball player, a high-success aspiration dancer, and a low-success aspiration dancer. Athletes rated

the softball player as much more socially acceptable than the dancer. Contrary to what one would expect, non-athletes did not perceive the dancer as significantly more acceptable than the softball player. The main effect of aspiration was not significant. These findings are consistent with those of McCullough (1976) whose results also indicated no significant difference in perception of femininity by subjects classified as athletes as compared to non-athletes.

In contrast, Berlin (1973) and Hall (1972) revealed that non-athletes or non-participants showed more dissonance between the concepts "feminine woman" and "athletic woman" than did athletes or participants. A study by Genovese (1975) concerning how college male and female athletes and non-athletes viewed slides of sportswomen were consistent with those of Berlin and Hall. She found that both male and female athletes viewed sportswomen more favorably than non-athletes. Finally, Harres (1968) investigated the attitudes of men and women undergraduates at the University of California concerning the desirability of athletic competition for girls and women. She found that the sample had favorable attitudes towards female competition in sports and furthermore, in keeping with the results of Berlin, Hall, and Genovese, those who participated in athletic competition had a more favorable attitude than those who did not.

A study that had dissimilar results again was that of Selby and Lewko (1976). They administered a Likert-type questionnaire to 106 girls and 264 boys in grades three to

six to measure their attitudes toward female sport involvement. Somewhat in contrast to the studies previously mentioned, their results showed that female participants favored female participation more so than female non-participants, while the opposite was true for males: male non-participants were more favorable toward female participation in sports than male participants.

Similar inconsistencies and contrasting results are found when sex and grade level or age of the subjects are examined as possible variables in the perception of the female athlete and female sport involvement. LeGrand's (1975) investigation of grade nine, ten, eleven, and twelve students' perceptions of six female roles indicated no significant differences between how males and females, or between how each grade level, perceived the roles. Similarly, Harres (1968) found no significant difference between the attitudes of men and women concerning the desirability of athletic competition for females.

On the other hand, Selby and Lewko (1977) and Genovese (1975) found that females had more favorable attitudes towards female sport involvement and sportswomen than males. Selby and Lewko's study further indicated that for both sexes, there was a trend for the older children (grades five and six) to perceive women in sports more favorably than the children in the early grades. Vickers (1976) also found significant differences between grade levels. Though her results showed the grade ten students

perceiving the concepts "male", "male athlete", "female", and "female athlete" more favorably than the grade seven and university students.

Sherriff's (1971) discussion of her research which investigated the status of female athletes as viewed by selected peers and parents, revealed that both male and female parents and teenage girls thought sports competition a desirable activity for women. On the other hand, teenage boys were more critical and felt that female athletes develop mannish characteristics.

It is obvious that the research to date has not indicated any conclusive trends with respect to whether or not such factors as sports participation, sex, or grade level significantly affect the perception of the female athlete and athletic competition for females.

Research has indicated that certain body types are capable of bringing forth common responses from adults and children with respect to personality and behavioral traits (Mathes, 1978). Caskey and Felker's (1971) study showed that girls from grades one to five responded to the female ectomorph body type with favorable adjectives and the endomorph body type with unfavorable adjectives. On the other hand, the boys in grades one to five responded to the female mesomorph with more favorable adjectives than the female ectomorph. These findings were consistent with those of Kurtz (1970) who also found that college males preferred the mesomorph body type whereas the females favored the ectomorph.

Consistently, the research has shown that the endomorph body type does not receive favorable personality or behavior traits whereas the mesomorph and ectomorph types are perceived more favorably (Staffiere, 1967; Miller, 1968; Kurtz, 1970; Caskey and Felker, 1971; Stewart and Tutton, 1973).

This research certainly suggests that female athletes who possess body types of the mesomorph (e.g. gymnasts) or ectomorph (e.g. swimmer) nature will be perceived more favorably than those with an endomorph body type (e.g. shot putter).

Some research has suggested that sports competition for women appears to be sanctioned only to the extent that it is in accordance with the feminine image (Metheny, 1964). Metheny analyzed previous data which explored the attitudes of college women towards women's participation in different sports. In her interpretation, Metheny classified sports according to their acceptability and then speculated as to what factors determined whether a sport was acceptable or not.

She observed that sports fell into four categories which were characterized by certain attributes. Sports such as wrestling, judo, boxing, long distance races, and all forms of team sports, with the exception of volleyball, were considered unacceptable for female participation. When analyzed closely, Metheny observed that these sports were characterized by one or more of the following attributes:

1. Direct application of force to a heavy object.

2. Cooperative face to face opposition in a situation in which some body contact may occur.
3. An attempt to project the body through space over long distances.

Activities such as shot put, middle distance sprints, gymnastics, and free exercise were considered generally unacceptable by the sample, but acceptable to a minority. These activities have the following in common:

1. An attempt to project the body through space over a moderate distance.
2. Direct application of bodily force to a moderately heavy object.
3. Display of strength in controlling body movements.

Sports such as swimming, diving, skiing, figure skating, golf, archery, and bowling were viewed as generally acceptable to all of the sample and did not appear to be at odds with the standards of social acceptability. The following attributes are common to these activities:

1. Utilization of a manufactured device to facilitate bodily movement.
2. An attempt to project the body through space in aesthetically pleasing patterns.
3. Overcoming the resistance of a light object.

The only types of face to face competition which were viewed as acceptable were fencing, squash, badminton, tennis, and volleyball. These activities are characterized by:

1. Overcoming the resistance of an essentially weightless object.
2. Application of force through a light implement.
3. Maintenance of a spatial barrier that prevents body contact with the opponent.

In general, Metheny's findings indicated that the majority of socially acceptable sports were of an individual nature and were characterized by little physical contact,

little strength, but more grace, speed and rhythm. On the other hand, Griffin (1972) also investigated the appropriateness or inappropriateness of nineteen activities and her sample of undergraduate students perceived none of the sports as inappropriate. Although she suggested that her findings were due possibly to the fact that she had not presented a good range of activities, it is unlikely since the nineteen activities included were both of a traditionally masculine and feminine nature. To be more optimistic, these results could be further indication of society's acceptance of female athletes regardless of the type of sport in which they participate.

The results of the study by Kingsley et al. (1977) further suggests the acceptance of traditionally male sports for female participation. These researchers found that 120 college women athletes viewed the softball player as much more socially acceptable than the dancer, and more importantly, the 120 non-athletes did not perceive the dancer as significantly more acceptable than the softball player.

In summary, the relevant literature suggests that the female athlete, although not the most preferred role, is definitely perceived favorably. The extent to which such factors as sports participation, sex, or grade level, affect the perception of female athletic roles is inconclusive and requires additional research.

Past studies dealing with the image of the female athlete have generally been limited to university or college

students and only examine one or possibly two factors which may affect the perceived image of the concepts. Furthermore, the concepts being explored are usually biologically ascribed roles, rather than work or social roles. In order to further our knowledge, it is necessary to include not only a number of different sample populations in our studies but also to explore numerous and differing factors which may affect the way in which the sample perceives roles.

CHAPTER III

PROCEDURE

Selection of the Sample

The sample population for this study consisted of five groups with twenty-five males and twenty-five females in each group, totalling 250 subjects. The groups studied were grade six, grade eleven, first year physical education, education, and vocational students. The physical education and education students were enrolled at the University of Alberta whereas the vocational students were enrolled at the Northern Alberta Institute of Technology, a college which provides one and two year programs of study in business, industry or technology.

It was the intent of this study to examine the relationship between the age of the subjects and how they perceived certain female roles. Therefore, the sample was chosen so that it included a wide range of ages. The mean ages for each group were: grade six - 11.3; grade eleven - 16.2; physical education - 19.0; education - 20.1; and vocational - 21.1.

Not only does the sample include a wide range of ages but also each group marks significant stages in the formal education of an individual. That is, the grade six student is at the top level of elementary school and is about to embark on junior high school, the grade eleven student has just come from being at the top in junior high school but is now at the bottom level of senior high school. Finally, the

first year physical education, education, and vocational students are possibly away from home for the first time and are experiencing independence.

The sample included not only varied ages but varied sport involvement as well. This made it possible to examine the relationship between sport involvement and the perception of the selected roles, in addition to the relationship between sport involvement and psychological androgyny.

Each group consisted of an equal number of males and females so that the question of whether or not males and females perceive female roles differently was examined.

Professors who taught first year physical education and education courses were contacted and those classes which had the required number of students were chosen as part of the sample. The Faculty of Education was chosen as part of this sample because of the accessibility of students for the study.

The Superintendent of the Separate School Board was contacted and he made available two schools from which the grade six and grade eleven students were sampled. The researcher contacted the appropriate people at each school and arrangements were made for the administration of the questionnaire.

Selection of the Instruments

Instrument to Assess Perception of Female Roles

The semantic differential was chosen to ascertain the subjects' perceived image of the selected female roles

(see Appendix A). The semantic differential, developed by Osgood, Suci and Tannenbaum (1957), consists of bipolar adjective pairs and a seven point scale. Subjects were asked to respond to these scales in relation to how they perceived certain concepts.

A number of previous studies (Brown, 1965; Griffin, 1972; LeGrand, 1972; Hall, 1972; McCullough, 1976; Vickers, 1976) have employed the semantic differential as an instrument to assess the perceptions of different female roles. These researchers have found it to be a reliable and valid measurement of the meaning people ascribe to stimulus words and concepts. Therefore, due to the nature of this study and the potential for comparing data, the semantic differential was chosen as the best instrument.

The concepts chosen for this study were selected on the basis of a number of considerations. When selecting concepts, Osgood, Suci and Tannenbaum (1957) suggest considering the following three points: 1) select concepts for which one can expect considerable individual differences; 2) select concepts that have a single unitary meaning for an individual, and 3) select concepts which are familiar to all of the subjects.

In order to obtain a clear picture of how female sport roles were perceived in relation to other female roles, the researcher felt that it was necessary to include as concepts both traditional and non-traditional female roles. Traditional female roles are those which have been

stereotyped as acceptable roles for females. Such roles are characterized by gentleness, a concern for others, and helpfulness. On the other hand, non-traditional female roles are those which have been labelled as male roles. The necessary attributes for such roles, such as aggressiveness, independence, and competitiveness, are contradictory to those associated with the feminine image.

Furthermore, to ascertain whether or not there are sports in which female participation is more acceptable than others, different types of female athletes must be presented as concepts.

The type of athlete to be selected was decided on the basis of somatotypes. Since the study concerned itself with perceived images, the researcher believed that the physical appearance of the concept to be studied is considered as the subjects respond to the scales.

Relevant research in the area of somatotyping of female athletes showed that female gymnasts and female shot putters have fairly distinct somatotypes (Carter, 1970; Hay and Watson, 1970; DeGaray, Levine and Carter, 1974). Gymnasts are considered the most mesomorphic of all athletes, whereas shot putters are usually the most endomorphic. On the other hand, swimmers are not quite so distinct but have somatotypes which overlap with other sport groups such as basketball players, golfers, tennis players and others, thus swimmers characterize the average athlete. Therefore, choosing these three specific types of athletes made it

possible to include a variation in body build or physical appearance.

The researcher was also interested in ascertaining the image of simply the female athlete, and thus compare this image with different types of female athletes.

Thus, taking into consideration Osgood, Suci and Tannenbaum's (1957) suggestions, the need to include traditional and non-traditional female roles, plus different types of athletes, the following concepts were selected: THE FEMALE ATHLETE, THE FEMALE SWIMMER, THE FEMALE NURSE, THE FEMALE GYMNAST, THE FEMALE LAWYER, and THE FEMALE SHOT PUTTER.

When selecting the scales Osgood, Suci and Tannenbaum (1957) recommend taking into consideration the factor composition of the scale, or how heavily weighted that scale is for a particular factor and the relevance of the scale to the concept being judged. Post factor analytic studies have provided information regarding the factor composition of a large number of bipolar adjectives. These studies suggest that adjectives measure meaning on three different dimensions or domains: 1) an evaluative dimension which denotes a "favorable" or "unfavorable" attitude; 2) a potency dimension which denotes "toughness"; and 3) an activity dimension which describes "activeness".

Osgood, Suci and Tannenbaum (1957) recommend fifteen or twenty scales and an equal number of scales for each dimension. Taking into consideration the grade six group, and thus the necessity for fairly simple scales, as well as

Osgood, Suci and Tannenbaum's recommendations, and a review of other studies, the following adjective pairs were chosen to represent the three dimensions of meaning:

1) evaluative dimension
   - beautiful-ugly
   - kind-cruel
   - good-bad
   - interesting-boring
   - pleasant-unpleasant

2) potency dimension
   - soft-hard
   - light-heavy
   - weak-strong
   - feminine-masculine
   - powerless-powerful

3) activity dimension
   - slow-fast
   - quiet-loud
   - still-moving
   - cooperative-competitive
   - dull-sharp

Subjects were asked to respond to each of the previously mentioned concepts in relation to the scales consisting of the bipolar adjectives, as follows:

THE FEMALE ATHLETE

beautiful ___:___:___:___:___:___:___ ugly
1 2 3 4 5 6 7

By marking the middle of the scale (4), the respondent indicates the concept to be neutral or that it makes no sense on the scale. By marking closer to the poles, the subject feels that the concept has a progressively stronger relation to either one end of the scale or the other.

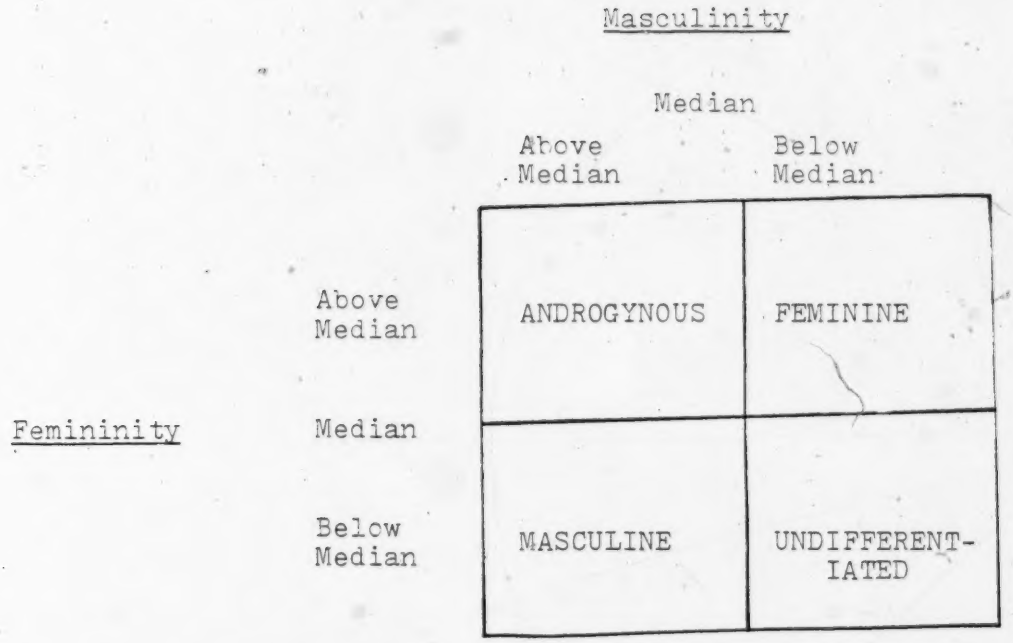
The evaluative dimension of the semantic differential is believed to be a valid measure of attitude, thus it was the response to these five scales with which the researcher was most concerned. The other ten scales, belonging to the potency and activity dimensions, were included to conceal somewhat the purpose of the instrument and to provide a more

complete measurement of meaning. Reversed scales were interspersed throughout to lessen the possibility of the subjects responding in a set of either 'desirable' or 'undesirable' items.

Instrument to Assess Psychological Androgyny

The Bem Sex Role Inventory (BSRI) (Bem, 1975; Bem, 1976; Strahan, 1975; Duquin, 1978) was used to obtain a measure of each subject's psychological androgyny. This inventory consists of sixty personality characteristics: twenty traditionally masculine (e.g. ambitious, self-reliant, independent, assertive); twenty traditionally feminine (e.g. affectionate, gentle, understanding, sensitive to the needs of others); and twenty neutral (e.g. truthful, friendly, likable). The entire index may be found in Appendix A.

The masculine, feminine, and neutral characteristics appear in random order on the inventory. Subjects are asked to indicate on a scale from one ("never or almost never true") to seven ("always or almost always true") how well each characteristic describes themselves. For each of the five groups, the median is calculated for both the masculinity and femininity scales and then a fourfold classification of subjects is derived as follows:



Therefore, each group of subjects are categorized as either masculine (high masculine-low feminine), feminine (high feminine-low masculine), androgynous (high masculine-high feminine), or undifferentiated (low masculine-low feminine).

Instrument to Assess Degree of Sport Involvement

In order to obtain a measure of the subjects' degree of sport involvement, relevant questions from Kenyon and McPherson (1969), Hall (1974), and Richardson (1974) were included (see Appendix A). These questions ascertained the number and type of sports in which the subjects were involved and the intensity and duration of their involvement.

Analysis of Data

All statistical procedures in this study were operationalized through programs chosen from the Statistical

Package for the Social Sciences (Nie, et al., 1975), a series of computer programs for the analysis of social science data.

A factor analysis with Varimax rotation was completed in order to ascertain if the subset of scales used, was in fact, semantically stable. In other words the factor analysis would identify the evaluative, potency, and activity dimensions and thus test the construct validity of the semantic differential. Cronbach's Alpha reliability coefficients were obtained for each of the dimensions of each concept as a measure of internal consistency.

In order to answer the research questions to which this study was addressed, several statistical procedures were utilized. Each of the seven research questions were considered separately:

Question One: Is there a significant difference in the perception the total sample has of the six selected female roles?

Step One: The first statistical step consisted of determining the dimension mean scores for the evaluative, potency, and activity dimensions for each of the six roles. These dimension mean scores are the result of summing the five scales in each domain, dividing by five, for each subject and then finding the mean.

Step Two: An overall attitude score for each role was calculated for the total sample. This attitude score is the result of adding the scores of the five evaluative scales for each subject and obtaining the mean. Only the evaluative dimension scales were added since this dimension

reflects a favorable or unfavorable attitude. Scores can range from five to thirty-five, with a lower score denoting a more favorable attitude and a higher score denoting an unfavorable attitude.

Step Three: A mean score for each scale of each role was calculated for the total sample. Using these mean scores, it was possible to draw profiles which provided visual presentations of the sample's perceived images of the six female roles.

Step Four: The mean scores for each scale of each role were submitted to an analysis of variance test to determine if there were significant differences at the .05 level between the six roles as perceived by the sample.

Step Five: In order to obtain a more complete and accurate understanding of the sample's perception of the roles, it was necessary to calculate D-scores. D-scores, or generalized distance scores, are specific to the semantic differential and indicate the overall distance between concepts or roles. A D-score is defined as the square root of the sum of the squared differences between the scores of each scale.

Question Two: How do males and females perceive the six female roles?

Step One: Dimension mean scores were calculated for each dimension of each role for males and females separately.

Step Two: An overall mean attitude score for each role was calculated, thus presenting the favorableness or unfavorableness of the roles as perceived by each sex.

Step Three: The mean scores for each scale for males

and females were calculated separately and profiles were drawn, thus illustrating the way in which each sex perceived the female roles.

Step Four: D-scores were computed which indicated the overall distance between the roles as perceived by each sex.

Question Three: How do grade six, grade eleven, first year physical education, education, and vocational students perceive the six selected female roles?

Step One: Mean scores for the evaluative, potency, and activity dimensions were calculated for each group.

Step Two: The "favorableness" or "unfavorableness" of each role was obtained by calculating the overall mean attitude scores for each role.

Step Three: D-scores were calculated for each group to indicate the overall distance between each of the roles.

Question Four: Is there a significant difference, by group, or, by sex, in the perception of the six female roles?

Step One: A four-way analysis of variance test (group by sex by roles by dimension) was used to determine if there were any significant differences at the .05 level.

Question Five: Is there a significant relationship between the subjects' psychological androgyny and how they perceive the six female roles?

Step One: The medians were calculated for both the masculinity and femininity scales for each group. The subjects of each group were then divided into four categories: androgynous, masculine, feminine or undifferentiated, on the basis of the medians that were calculated.

Step Two: A four-way analysis of variance test

(psychological androgyny by group by roles by dimension) was then carried out. The level of significance was set at .05.

Question Six: Does the subjects' degree of sport involvement significantly affect their perception of the six female roles?

Step One: A participation score was calculated for each subject. In order to obtain this score, the responses to the frequency and duration of Most Popular Activities were recoded. Subjects received a five if they participated in an activity "every day"; a four for "at least two or three times a week"; a two for "at least once or twice a month"; and a one for "less than once a month". Therefore, a subjects' score for frequency of participation could range from four to twenty. Furthermore, respondents received a four if they participated in an activity for "over two hours"; a three for "between one to two hours"; a two for "between thirty minutes to one hour"; and a one for "less than thirty minutes". Thus, a duration score could range from four to sixteen.

The participation score was the result of summing the number of activities checked in Question 1 (a possibility of fifty) plus the frequency score plus the duration score. The participation score could range anywhere from a low of zero to a high of eighty-six.

The frequency distribution of the participation score was found and on the basis of this distribution the total sample was divided into four sport involvement groups. A participation score of twenty to thirty-two placed the subject into the Low sport involvement group; a thirty-three to

thirty-eight score was Average; a thirty-nine to forty-seven score was Moderate; and a forty-eight to sixty-one score was High sport involvement.

Step Two: After placing the sample into sport involvement groups of Low, Average, Moderate or High, the mean scores of the scales were subjected to an analysis of variance test. The level of significance was set at .05 to determine if the subjects' sport involvement affected their perception of the female roles.

Question Seven: Is there a significant relationship between the subjects' psychological androgyny and their degree of sport involvement?

Step One: An analysis of variance test was used to determine if there was a significant relationship at the .05 level between psychological androgyny and degree of sport involvement.

CHAPTER IV

RESULTS

In this chapter the results of the factor analysis and the reliability test will be presented first and then the other findings are presented in terms of the seven research questions.

The Varimax rotated factor matrices (Appendix B) for the roles indicated that only the evaluative dimension adjectives showed any consistent factorial purity. Even so, their purity was isolated to the concepts THE FEMALE SWIMMER, THE FEMALE GYMNAST, THE FEMALE NURSE, and THE FEMALE SHOT PUTTER. Since the evaluative adjectives did not load significantly higher on any one factor for the concepts THE FEMALE ATHLETE or THE FEMALE LAWYER, the respondents did not appear to have a clear or concise image of these roles, but rather, their perception was quite ambiguous. Although the evaluative adjectives did show some impurity, the researcher felt it was still feasible to calculate the overall attitude score from these adjectives.

The adjectives for the potency and activity dimensions showed much less purity. In fact, among the concepts, the only one which showed a stable potency factor was THE FEMALE SHOT PUTTER. Although the potency domain adjectives loaded moderately high on one factor, there was no consistent pattern among the activity adjectives. Such inconsistency among the activity dimension is in keeping with the findings of Hall (1972). It is obvious that confusion results when subjects

must respond to these activity adjectives in relation to certain active female roles.

In general, the results of the factor analysis showed that the respondents have relatively clear perceptions of the nurse, a traditional female role, and the shot putter, a less acceptable athletic role for women, whereas the other roles were viewed quite ambiguously.

In order to examine the internal consistency of the semantic differential, Cronbach's Alpha reliability coefficients were obtained for each of three dimensions of each concept. These coefficients are presented in Table I. It would appear that the semantic differential measured consistently in the evaluative dimension where the overall reliability was .78. The reliability of the potency dimension was lower with an average of .61. The average reliability coefficient for the activity dimension was very low (.29) and therefore the activity scales were not thought to be a reliable measure of the subjects' perception of activity relative to the concepts. Such low coefficients for the activity domain is also a reflection of their factoral impurity.

Question One: Is there a significant difference in the perception the total sample has of six selected female roles?

Step One: The dimension mean scores for each role as perceived by the sample were calculated and are presented in Table II. The scores show that the sample saw a difference between the roles across all three dimensions, with some

TABLE I

RELIABILITY CO-EFFICIENTS

CONCEPT	DIMENSION		
	Evaluative	Potency	Activity
THE FEMALE ATHLETE	.72	.58	.26
THE FEMALE SWIMMER	.80	.63	.40
THE FEMALE NURSE	.86	.61	.06
THE FEMALE GYMNAST	.71	.52	.24
THE FEMALE LAWYER	.76	.56	.44
THE FEMALE SHOT PUTTER	.85	.76	.31

TABLE II

DIMENSION MEAN SCORES FOR THE TOTAL SAMPLE

	Evaluative*	Potency**	Activity***
ATHLETE	2.76	4.40	5.09
SWIMMER	2.83	4.64	5.19
NURSE	2.41	3.41	4.08
GYMNAST	2.64	4.18	5.16
LAWYER	3.18	4.40	5.00
SHOT PUTTER	3.86	5.85	4.57

* The lower the score, the more favorable the role.

** A score below 4.00 is considered impotent, therefore, the greater the score, the more potent the role.

*** The higher the score, the more active the role.

roles being perceived more similarly than others. The traditional role of nurse was perceived as the most favored role whereas the non-traditional role of lawyer and especially the less acceptable athletic role of shot putter were least favored. On the potency factor, the shot putter was considered to be by far the most potent and the traditional role of nurse, the least potent. In keeping with this traditional role, the nurse was also viewed as being the least active, whereas the swimmer and gymnast were seen as the most active.

Step Two: To further identify the favorableness or unfavorableness of the roles, an overall mean attitude score was calculated for each role. These mean attitude scores are presented in Table III.

The roles of nurse and gymnast were found again to be perceived as the most favored, since their scores were closer to five which denotes favorableness. Furthermore, the role of shot putter was clearly perceived as less favorable since a score of 17.5 or more denotes a less favorable attitude.

Step Three: The mean scores of each scale for each role were calculated for the total sample and are shown in Table IV. The scores are presented in such a manner so that the roles are ranked in order of favorableness (a lower score), potency (a higher score), and activity (a higher score). These scores allow the researcher to examine more closely the perceptions of the six female roles.

TABLE III

OVERALL MEAN ATTITUDE SCORES FOR TOTAL SAMPLE

NURSE	12.07
GYMNAST	13.20
ATHLETE	13.80
SWIMMER	14.14
LAWYER	15.92
SHOT PUTTER	19.28

TABLE IV

MEAN SCALE SCORES OF EACH ROLE FOR TOTAL SAMPLE*

Evaluative

Beautiful-Ugly		Kind-Cruel		Good-Bad		Interesting-Boring		Pleasant-Unpleasant	
GYM	2.58	N	2.22	N	2.32	GYM	2.36	N	2.23
N	2.61	FA	3.00	GYM	2.44	FA	2.50	GYM	2.77
FA	2.91	GYM	3.05	FA	2.57	N	2.70	FA	2.79
SW	2.99	SW	3.08	SW	2.57	SW	2.70	SW	2.80
LAW	3.24	LAW	3.69	LAW	2.94	LAW	2.74	LAW	3.31
SP	4.66	SP	3.85	SP	3.27	SP	3.86	SP	3.64

Potency

Soft-Hard		Light-Heavy		Weak-Strong		Feminine-Masculine		Powerless-Powerful	
N	2.84	GYM	2.15	N	4.44	N	2.33	N	4.26
GYM	4.12	N	3.18	LAW	4.85	GYM	2.95	LAW	4.97
FA	4.52	FA	3.44	FA	5.45	FA	3.37	FA	5.20
SW	4.54	SW	3.46	SW	5.94	LAW	3.45	GYM	5.59
LAW	5.03	LAW	3.67	GYM	6.08	SW	3.59	SW	5.64
SP	5.79	SP	5.72	SP	6.42	SP	5.19	SP	6.12

* The roles are abbreviated as follows: female athlete = FA; female swimmer = SW; female nurse = N; female gymnast = GYM; female lawyer = LAW; and female shot putter = SP.

TABLE IV (CONT'D)

Activity

Slow-Fast		Quiet-Loud		Still-Moving		Cooperative-Competitive		Dull-Sharp	
SP	3.91	GYM	3.07	SP	4.58	N	2.38	SP	4.27
N	4.94	N	3.26	LAW	4.58	LAW	4.39	SW	5.28
LAW	4.96	SW	3.75	N	4.90	FA	4.84	GYM	5.40
FA	5.54	FA	3.97	GYM	5.46	SW	5.10	N	5.42
GYM	5.85	SP	4.95	FA	5.65	SP	5.16	FA	5.44
SW	5.97	LAW	5.09	SW	5.82	GYM	5.40	LAW	6.00

Evaluative Scales: As can be seen from Table IV, the role rankings of the evaluative scales, good-bad, pleasant-unpleasant, and beautiful-ugly are all very similar. These role rankings coincide with those discussed in Step One, with the nurse being perceived as the most favored role and the shot putter as the least favored.

Potency Scales: The mean scores for the potency scales consistently show the shot putter as being the most potent and the nurse as the least potent. Similar to the evaluative scales, the scores for the nurse and those for the shot putter are quite extreme.

Activity Scales: The mean scores for the activity scales were inconsistent; the scores do not have the same range as do the evaluative or potency scale scores, nor does a clear pattern emerge from them. Therefore, the roles are not perceived very distinctly when examined in relation to passiveness or activeness.

Another method of illustrating the sample's perceptions of the female roles is to present the mean scale scores in profile form. These profiles are thus a visual presentation of the way in which the total sample perceived the six female roles, and can be seen in Figure 1.

When the profiles are examined closely, the roles of swimmer and female athlete follow a very similar pattern. On the other hand, as previous results have shown, the roles of nurse and shot putter have the most extreme patterns, thus indicating the most incongruence between these two roles.

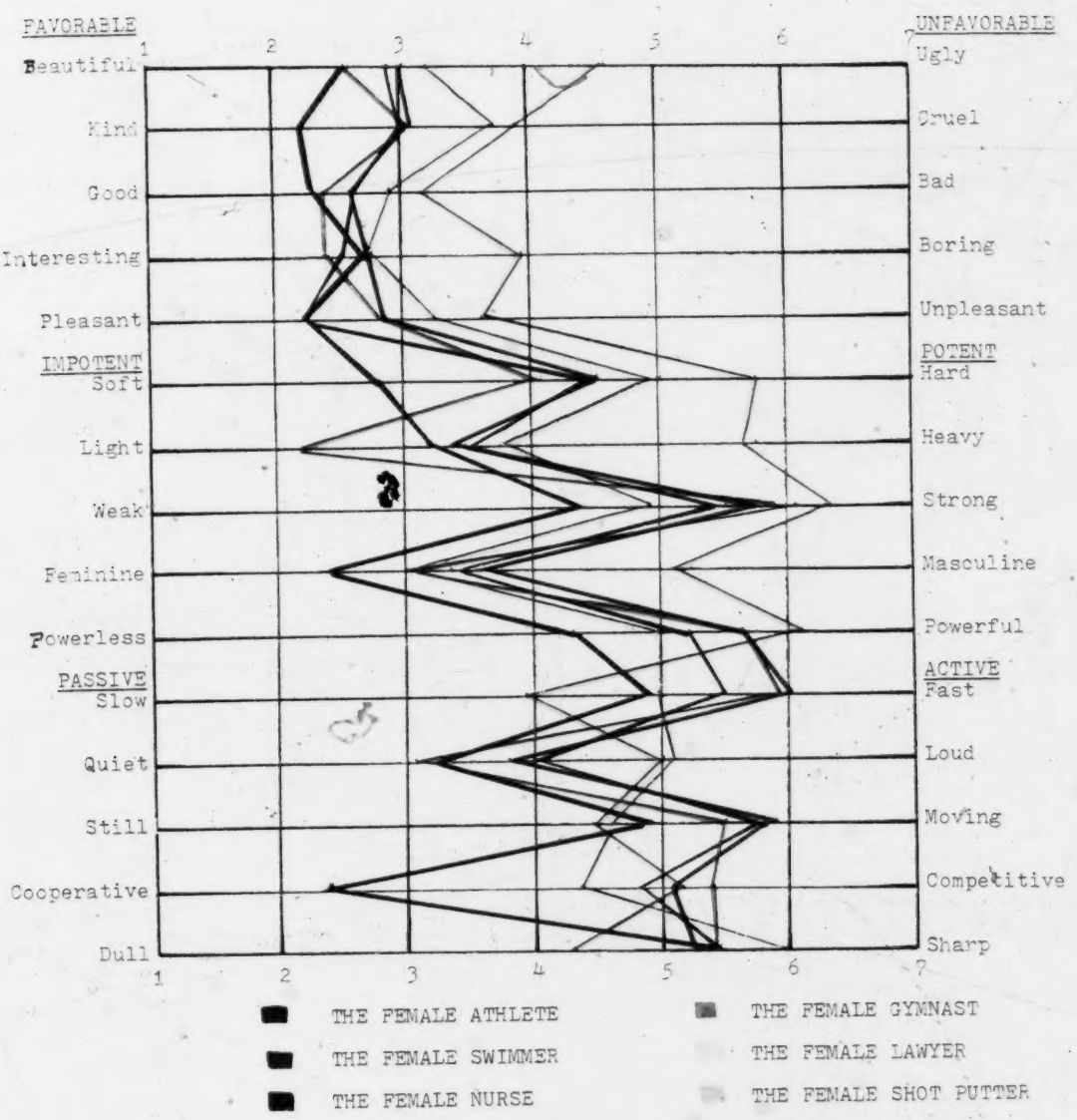


FIGURE 1

PROFILES OF ROLES AS PERCEIVED BY TOTAL SAMPLE

These profiles clearly illustrate the pattern found within the evaluative scale scores. That being, the roles are ranked in order of favorableness as follows: nurse, gymnast, athlete, swimmer, lawyer, and shot putter. On the other hand, the potency and activity scales do not present such a clear pattern but are rather inconsistent.

Step Four: The mean scores of each scale for each role were submitted to an analysis of variance test. Results of the ANOVA were significant, $F(5,1200)=251.043$, $p < .001$, thus indicating that the total sample perceived significant differences between the six female roles.

Step Five: To better clarify the perception of the roles and more specifically, to indicate the overall distance between the roles, D-scores or generalized distance scores were calculated. These scores provide a numerical presentation of the overall distance between the roles. The D-scores based on the responses of the total sample may be seen in Table V.

Confirming the results of the role rankings on the basis of mean scale scores and dimension scores, the greatest distance between roles was found between the nurse and the shot putter. The role of gymnast and shot putter have the second greatest distance between them. On the other hand, the athlete and the swimmer were viewed as being the most similar of roles. These findings are in keeping with the results cited earlier, especially the profiles which also showed the incongruence of the nurse and shot putter and

TABLE V

D-SCORES FOR THE TOTAL SAMPLE

	ATHLETE	SWIMMER	NURSE	GYMNAST	LAWYER	SHOT PUTTER
ATHLETE	-	5.01	7.42	6.06	6.63	7.73
SWIMMER		-	7.72	5.65	6.79	7.59
NURSE			-	7.63	7.49	9.97
GYMNAST				-	7.34	8.67
LAWYER					-	7.79
SHOT PUTTER						-

the similarity between the athlete and the swimmer.

Question Two: How do males and females perceive the six female roles?

Step One: Dimension mean scores were calculated for each role for males and females separately, and are presented in Table VI. The scores from the evaluative dimension show that both males and females perceived the six roles in an identical order of favorableness. Slight differences in perception do arise when the scores are examined closely. Males evaluated the two most favored roles (nurse and gymnast) more positively than the females. However, at the same time, the males also evaluated the two least favored roles (lawyer and shot putter) more negatively than did the females.

A similar pattern may be found in the potency scores where the order of role potency is similar for both sexes but the females viewed five of the six roles as being less potent than did the males.

Little can be said about the activity dimension scores since there was not a great variation in scores. The role of the nurse was the only role which both sexes found to be less active than the others.

Step Two: Overall mean attitude scores were determined for both males and females and are presented in Table VII. Once again, these scores illustrate the same order of favorableness as was presented by the dimension mean scores. These scores do show, however, that both sexes, and especially

TABLE VI

DIMENSION MEAN SCORES FOR MALES AND FEMALES

Males

	Evaluative	Potency	Activity
ATHLETE	2.81	4.19	4.98
SWIMMER	2.83	4.44	5.07
NURSE	2.33	3.30	4.09
GYMNAST	2.60	4.05	5.20
LAWYER	3.43	4.24	4.95
SHOT PUTTER	4.15	5.88	5.20

Females

	Evaluative	Potency	Activity
ATHLETE	2.71	4.61	5.25
SWIMMER	2.84	4.82	5.31
NURSE	2.50	3.49	4.03
GYMNAST	2.67	4.34	5.17
LAWYER	2.98	4.54	5.09
SHOT PUTTER	3.58	5.83	4.65

TABLE VII

MEAN ATTITUDE SCORES FOR MALES AND FEMALES

Males		Females	
NURSE	12.54	NURSE	11.60
GYMNAST	13.31	GYMNAST	13.08
ATHLETE	13.65	ATHLETE	13.96
SWIMMER	14.10	SWIMMER	14.18
LAWYER	14.94	LAWYER	16.90
SHOT PUTTER	18.04	SHOT PUTTER	20.51

the males, viewed the role of shot putter in a much less favorable manner than the other roles. The roles of nurse and gymnast were again perceived as the most favored roles, particularly as viewed by the males.

Step Three: The mean scale scores were calculated separately for each sex and are shown in Appendix C. To visually illustrate the way in which each sex perceived the female roles, profiles were drawn and are shown in Figures 2-7. These profiles show how similarly both sexes viewed most of the roles, except for the nurse and the shot putter. That is, these profiles illustrate the results found by the dimension mean scores: the males viewed the most favored roles (nurse and gymnast) more positively and less potently than did the females. Furthermore, the profiles clearly show how the males perceived the least favored roles (shot putter and lawyer) more negatively than did the females.

Step Four: D-scores were computed to indicate the overall distance between the roles as perceived by each sex and are shown in Table VIII. These scores show that both sexes saw the greatest amount of distance between the roles of nurse and shot putter, and the least amount of distance between the female athlete and the swimmer. When examining the scores closely, the males, more so than the females, consistently perceived a greater distance between each of the roles.

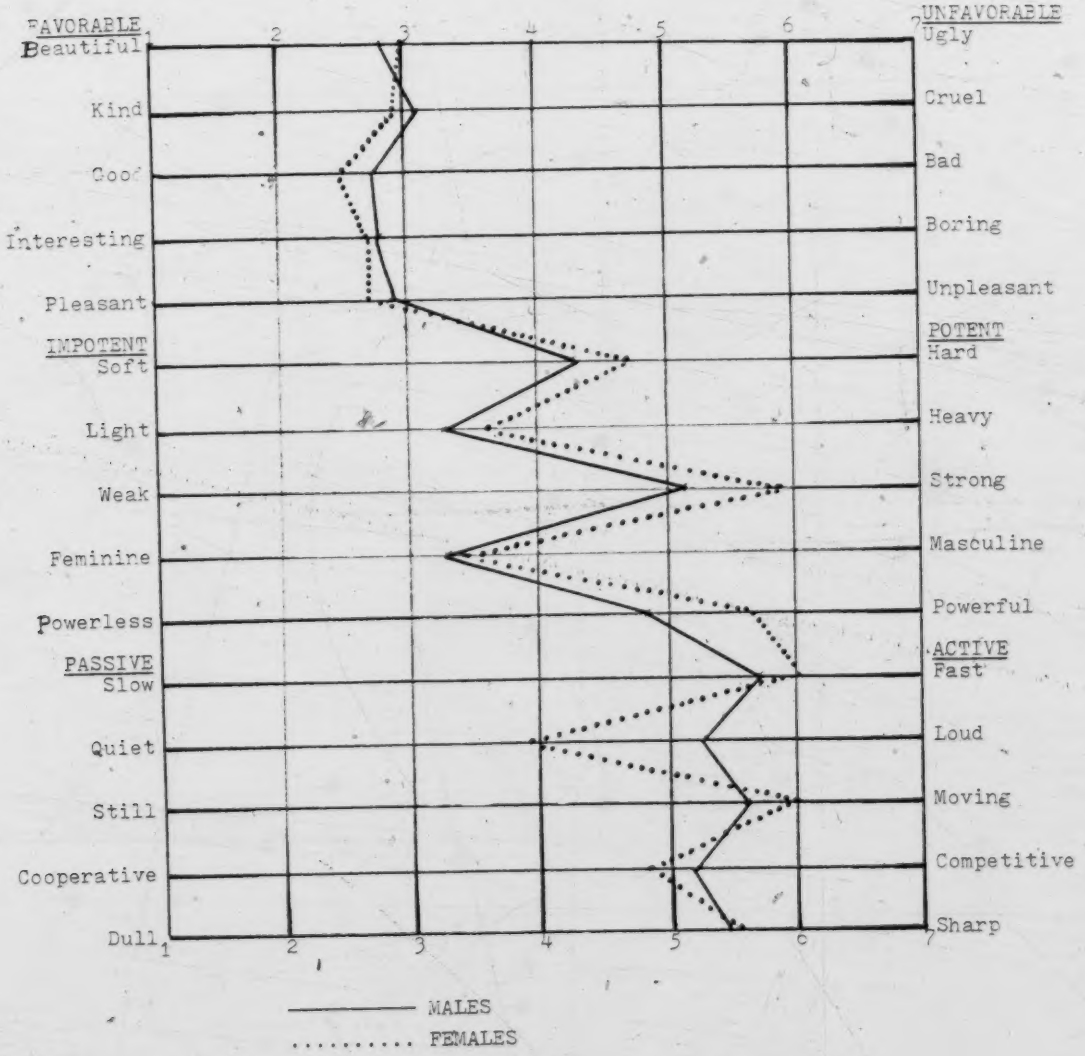


FIGURE 2

PROFILES OF THE FEMALE ATHLETE AS PERCEIVED BY MALES AND FEMALES

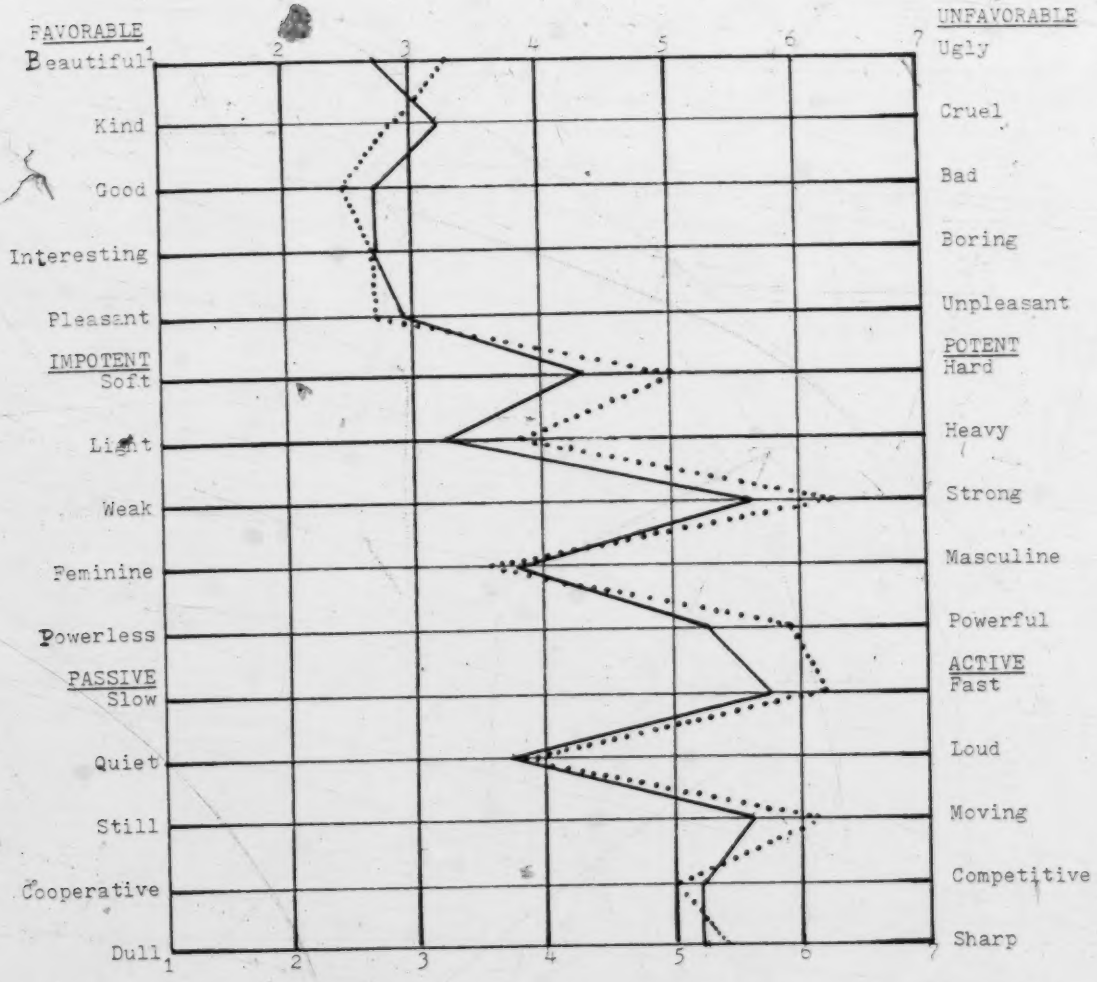


FIGURE 3

PROFILES OF THE FEMALE SWIMMER AS PERCEIVED BY MALES AND FEMALES

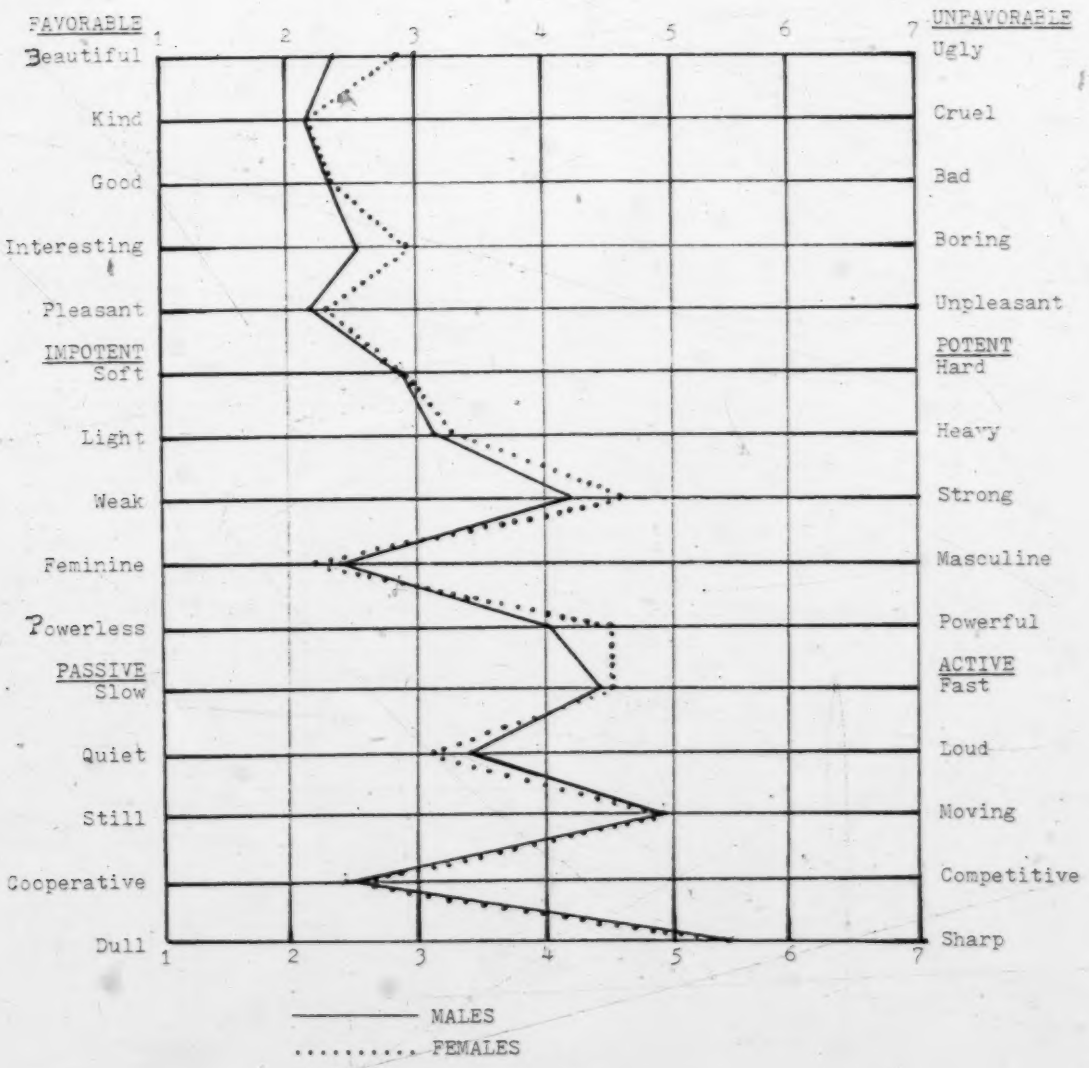


FIGURE 4

PROFILES OF THE FEMALE NURSE AS PERCEIVED

BY MALES AND FEMALES

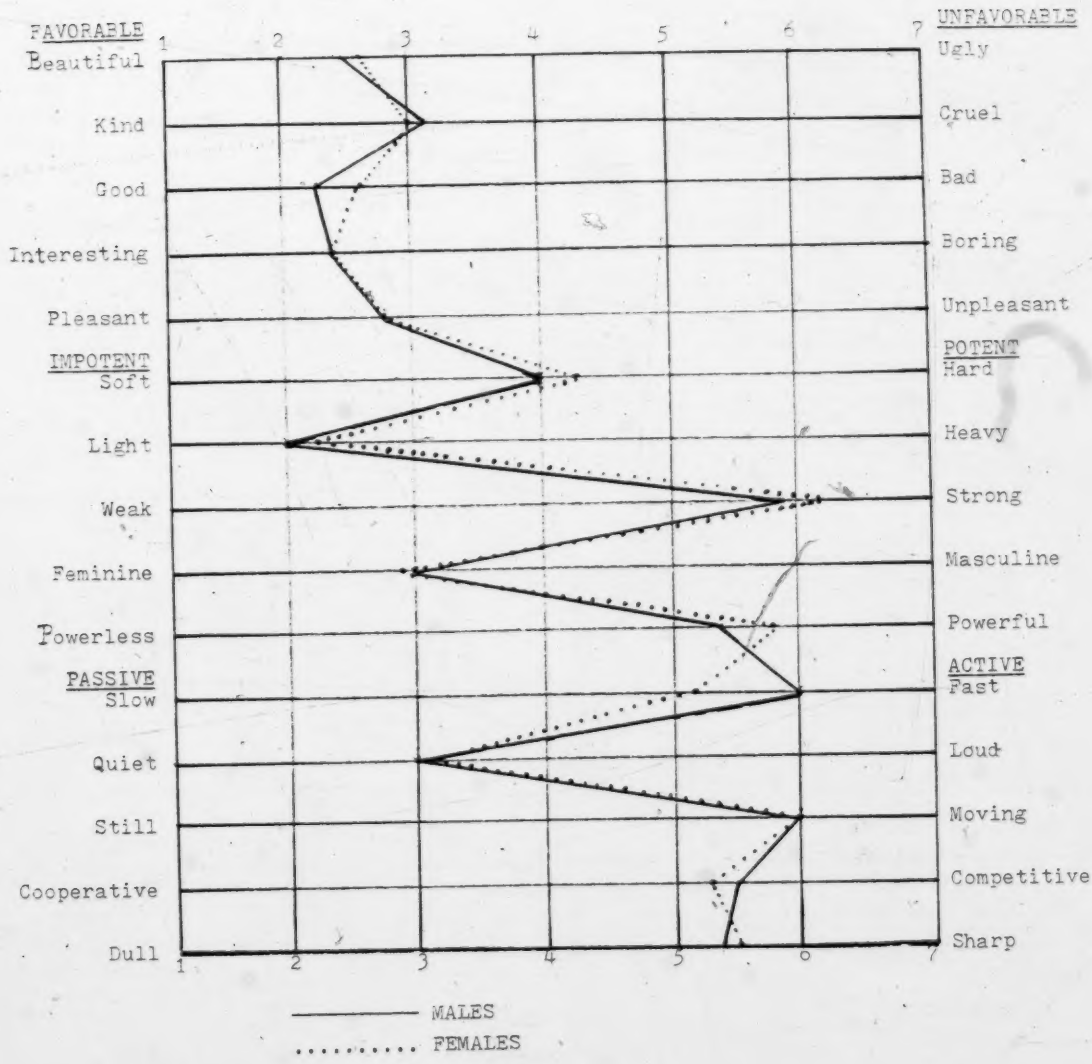


FIGURE 5

PROFILES OF THE FEMALE GYMNAST AS PERCEIVED BY MALES AND FEMALES

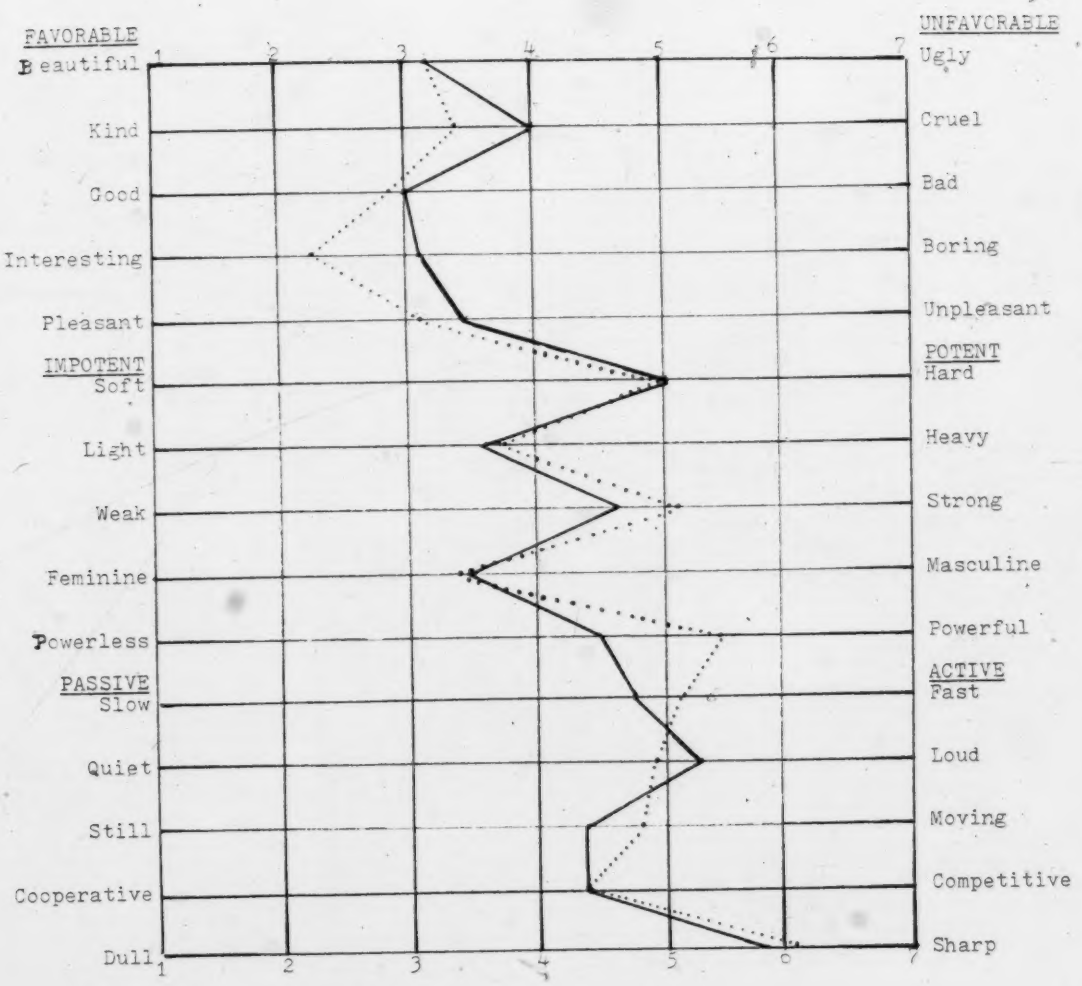


FIGURE 6

PROFILES OF THE FEMALE LAWYER AS PERCEIVED BY MALES AND FEMALES

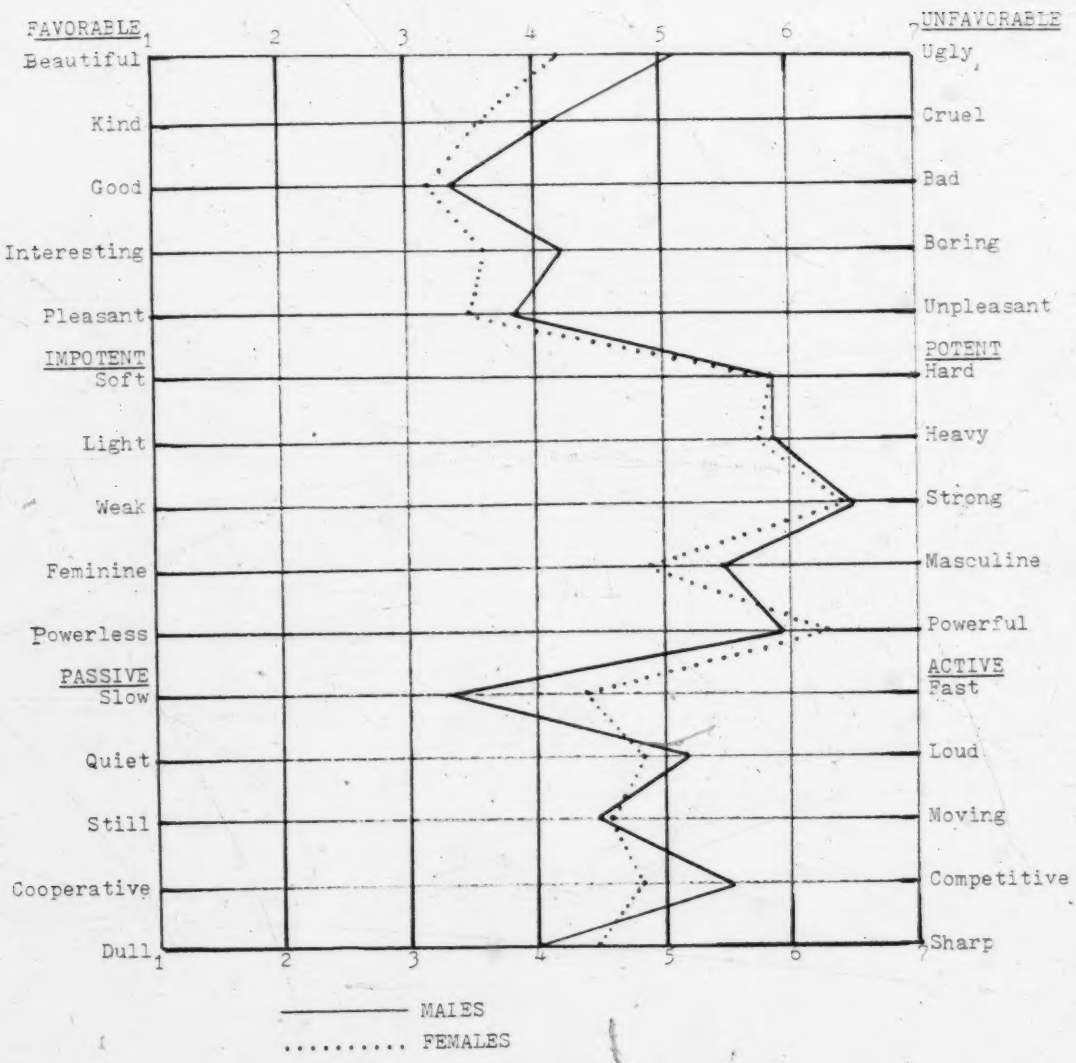


FIGURE 7

PROFILES OF THE FEMALE SHOT PUTTER AS PERCEIVED BY MALES AND FEMALES

TABLE VIII

D-SCORES FOR MALES AND FEMALES

Males

	ATHLETE	SWIMMER	NURSE	GYMNAST	LAWYER	SHOT PUTTER
ATHLETE	-	5.36	7.60	6.57	7.18	8.39
SWIMMER		-	7.82	5.85	7.30	8.28
NURSE			-	7.92	7.87	10.88
GYMNAST				-	7.97	9.44
LAWYER					-	8.70
SHOT PUTTER						-

Females

	ATHLETE	SWIMMER	NURSE	GYMNAST	LAWYER	SHOT PUTTER
ATHLETE	-	4.67	7.23	5.55	6.09	7.07
SWIMMER		-	7.61	5.46	6.28	6.90
NURSE			-	7.35	7.11	9.07
GYMNAST				-	6.71	7.91
LAWYER					-	6.87
SHOT PUTTER						-

Question Three: How do grade six, grade eleven, first year physical education, education, and vocational students perceive the selected female roles?

Step One: Mean scores for the evaluative, potency and activity dimensions were calculated for each group and are presented in Table IX.

Evaluative Dimension: The mean scores from the evaluative domain show that the nurse and gymnast were perceived as the most favored roles. The only group to have a differing opinion was the sixth grade group who favored the role of swimmer, and then the nurse and gymnast. Furthermore, the physical education group favored the role of gymnast first and then the nurse. The roles of shot putter and lawyer were perceived across all groups as being the least favored. The eleventh grade group was the only group to view a role somewhat negatively, that role being the shot putter.

Potency Dimension: All groups, except the grade six students, perceived the roles of nurse and gymnast to be the least potent and the shot putter and swimmer to be the most potent. The sixth grade group had a somewhat different perception for they perceived the nurse and female athlete as the least potent and the shot putter and the gymnast as the most potent.

Activity Dimension: The nurse was perceived by all groups as being the least active, with four of the five groups viewing the shot putter as the next least active role. Again, four of the five groups viewed the gymnast or swimmer as the

TABLE IX

DIMENSION MEAN SCORES FOR EACH GROUP

	6th Gr.	11th Gr.	Phys.Ed.	Educ.	Voc'l.
Evaluative					
ATHLETE	2.62	2.69	2.60	3.06	2.83
SWIMMER	2.48	2.94	2.84	3.01	2.87
NURSE	2.50	2.12	2.59	2.26	2.58
GYMNAST	2.51	2.60	2.52	2.80	2.77
LAWYER	3.16	3.01	3.26	3.25	3.24
SHOT PUTTER	3.21	4.56	3.91	3.76	3.84
Potency					
ATHLETE	4.13	4.36	4.84	4.69	4.32
SWIMMER	4.27	4.60	4.86	4.94	4.51
NURSE	3.40	3.28	3.14	3.55	3.68
GYMNAST	4.32	4.28	4.10	3.92	4.26
LAWYER	4.16	4.37	4.36	4.67	4.41
SHOT PUTTER	5.00	6.34	6.22	5.93	5.75
Activity					
ATHLETE	5.01	5.11	5.22	5.23	4.86
SWIMMER	5.04	5.20	5.35	5.29	5.06
NURSE	4.12	4.24	3.72	4.24	4.10
GYMNAST	4.91	5.34	5.24	5.19	5.11
LAWYER	4.64	5.13	4.98	5.33	4.93
SHOT PUTTER	4.65	4.46	4.52	4.70	4.52

most active role. The education students had a contrary opinion for surprisingly they saw the lawyer as the most active role.

Step Two: Overall mean attitude scores for each role were calculated for each group and are presented in Table X. These attitude scores further confirm the findings in Step One. These scores do indicate more clearly that all groups except the grade six students had a much less favorable attitude towards the role of shot putter.

Step Three: The mean scale scores of each role were calculated for each group. Using these scores, profiles of each role were drawn. All of the profiles, with the exception of the profile for the shot putter which is shown in Figure 8, may be found in Appendix D.

The profile of the shot putter (Figure 8) clearly shows the perceptions of each group. For example, responses to the evaluative scales present a clear pattern of which group viewed the role of shot putter most positively; that order being grade six, education, vocational, physical education and grade eleven students, respectively.

Responses to the potency scales also clearly indicated the groups' order of how they perceived the shot putter's potency. When examining the potency scales, grade eleven, physical education, education, vocational, and grade six students, respectively, considered the shot putter to be potent.

The activity scales showed no clear pattern but were rather haphazard.

TABLE X

OVERALL MEAN ATTITUDE SCORES FOR EACH GROUP

	6th Gr.	11th Gr.	Phys.Ed.	Educ.	Voc'l.
ATHLETE	13.12	13.46	12.98	15.30	14.16
SWIMMER	12.42	14.70	14.18	15.06	14.34
NURSE	12.52	10.62	12.96	11.32	12.92
GYMNAST	12.56	12.98	12.60	14.00	13.84
LAWYER	15.78	16.30	16.30	16.26	16.20
SHOT PUTTER	16.04	22.78	19.56	18.78	19.22

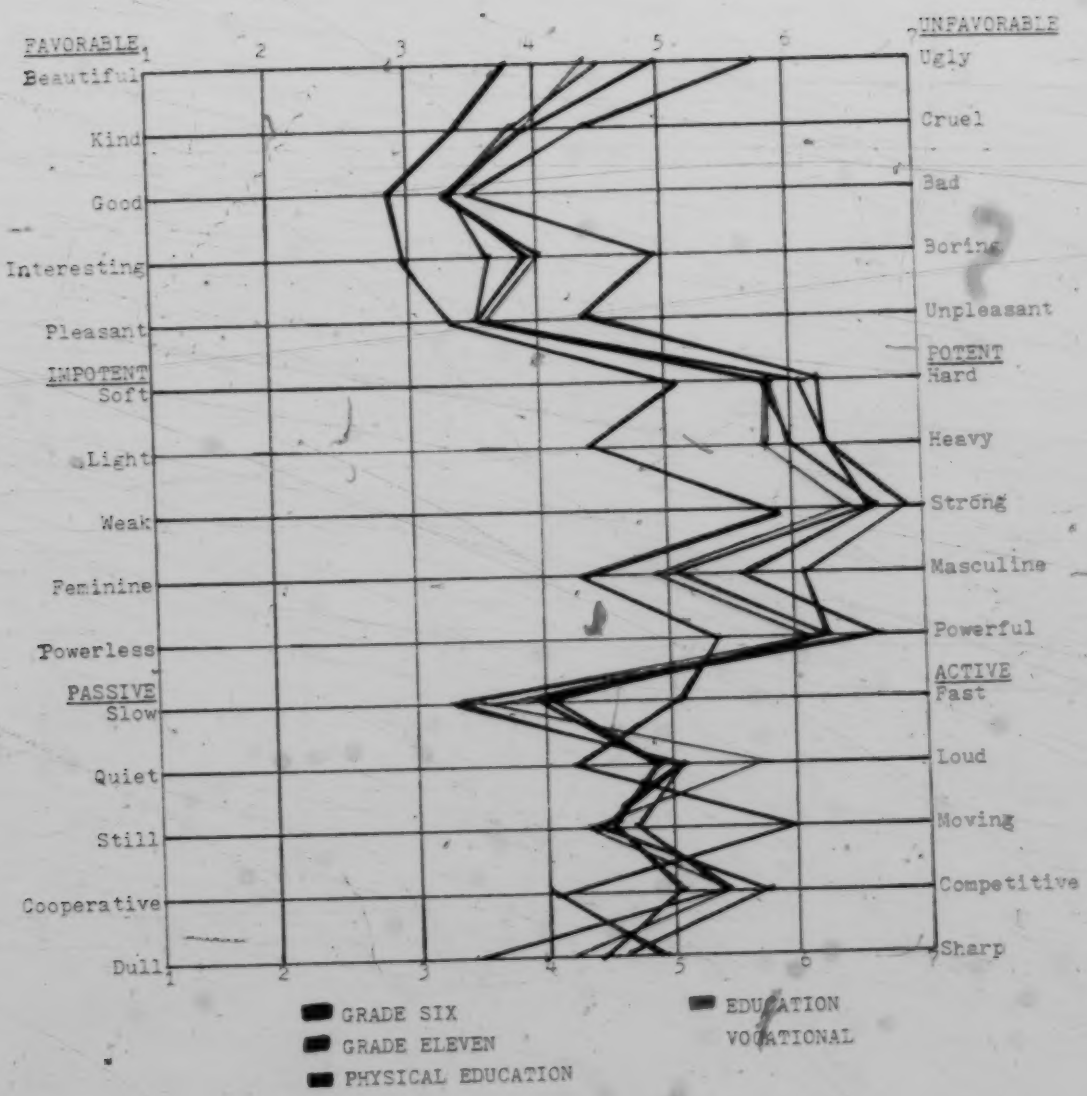


FIGURE 8

PROFILE OF THE FEMALE SHOT PUTTER AS PERCEIVED BY EACH GROUP

Ster Four: D-scores were calculated for each role for all five groups (see Appendix E). All groups perceived the roles of nurse and shot putter as having the most distance between them, with the grade eleven group perceiving this distance the most. Furthermore, all groups viewed the athlete and the swimmer as being the most similar roles.

Question Four: Is there a significant difference, by group, or, by sex, in the perception of the female roles?

Step One: The mean scale scores were submitted to a four way analysis of variance test (sex by group by roles by dimension). The results of the ANOVA are presented in Table XI and show a significant difference by group, $F(4,240)=9.21$, $p<.001$ and a significant difference by sex, $F(1,240)=5.66$, $p<.05$, in the perception of the six female roles.

Question Five: Is there a significant relationship between the subjects' psychological androgyny and how they perceived the female roles?

Step One: The medians were calculated for both the masculinity and femininity scales of the BSRI for each group and are shown in Table XII. The subjects of each group were then divided, on the basis of their group medians, into four categories: androgynous, masculine, feminine or undifferentiated. The breakdown of subjects into these categories is presented in Table XIII. This breakdown shows the grade six and the physical education group, respectively, to have the most students in the androgynous category, whereas the grade eleven and the vocational group had the least

TABLE XI

ANALYSIS OF VARIANCE SUMMARY TABLE FOR

SEX BY GROUP BY ROLES BY DIMENSION

Between subject factors are:

A - SEX
B - GROUP

Within subject factors are:

C - ROLES
D - DIMENSION

SOURCE	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARES	F RATIO	PROBABILITY
A	7.703	1	7.703	5.662	0.018
B	50.116	4	12.529	9.210	0.001
AB	11.755	4	2.939	2.160	0.074
S-WITHIN	326.500	240	1.360		
C	830.207	5	166.041	251.043	0.001
AC	16.693	5	3.339	5.048	0.001
BC	66.644	20	3.332	5.038	0.001
ABC	18.671	20	0.934	1.411	0.107
CS-WITHIN	793.688	1200	0.661		
D	3047.396	2	1523.698	938.713	0.001
AD	27.881	2	13.940	8.588	0.001
BD	8.594	8	1.074	0.662	0.725
ABD	20.044	8	2.505	1.544	0.140
DS-WITHIN	779.125	480	1.623		
CD	523.877	10	52.388	128.551	0.001
ACD	20.935	10	2.094	5.137	0.001
BCD	89.679	40	2.242	5.501	0.001
ABCD	31.104	40	0.778	1.908	0.001
CDS-WITHIN	978.063	2400	0.408		

TABLE XII

MEDIANS OF MASCULINITY AND FEMININITY SCALES (BSRI)

FOR EACH GROUP

Group	Median	
	Masculinity	Femininity
Grade 6	4.48	4.38
Grade 11	4.73	4.36
Physical Education	5.18	4.73
Education	4.61	4.83
Vocaticnal	4.45	4.68

TABLE XIII

BREAKDOWN OF PSYCHOLOGICAL ANDROGYNY CATEGORIES

BY GROUP

	Group				
	6th Gr.	11th Gr.	Phys.Ed.	Educ.	Voc'l.
ANDROGYNOUS	13	9	11	10	9
MASCULINE	12	16	14	13	16
FEMININE	12	15	14	15	16
UNDIFFERENTIATED	13	10	11	12	10

number.

Step Two: The results of the four-way analysis of variance test (psychological androgyny by group by roles by dimension) were not significant. This finding indicated that the subjects' psychological androgyny did not affect the way in which they perceived the female roles. A significant interaction was found at the .05 level between psychological androgyny and the roles.

Question Six: Does the subjects' degree of sport involvement significantly affect their perception of the female roles?

Step One: Each subject was placed into a High, Moderate, Average, or Low sport involvement group on the basis of their participation score. The distribution of each group into these sport involvement categories is presented in Table XIV.

One can see that the grade six group, followed by the physical education sample had the greatest number of subjects in the High sport involvement category and the lowest number in the Low involvement category. On the other hand, the education and vocational groups had no subjects falling in the High involvement group but had the greatest number in the Low category.

Step Two: The analysis of variance test showed no significance at the .05 level, thus indicating that the subjects' degree of sport involvement did not significantly affect their perception of the female roles.

TABLE XIV

DISTRIBUTION OF SAMPLE INTO SPORT INVOLVEMENT GROUPS

Sample Group	Sport Involvement Group				
	High	Moderate	Average	Low	Total
6th Gr.	14	16	15	3	48
11th Gr.	4	26	16	1	47
Phys.Ed.	9	31	5	0	45
Educ.	0	3	20	20	43
Voc'l.	0	6	16	18	40
Total	27	82	72	42	223
	12.1%	36.8%	32.3%	18.8%	100%

Question Seven: Is there a significant relationship between the subjects' psychological androgyny and their degree of sport involvement?

Step One: Results of the analysis of variance test indicated that there was no significant relationship between the subjects' psychological androgyny and their degree of sport involvement.

The results of this chapter may be summarized in the following manner:

1. The Varimax rotated factor analysis indicated that only the evaluative dimension adjectives showed any consistent factoral purity. The adjectives for the potency and activity dimensions showed much less purity. The respondents had relatively clear perceptions of the nurse and the shot putter, but a more ambivalent picture of the female athlete, the swimmer, the lawyer, and the gymnast.

2. The reliability coefficients showed that the semantic differential measured consistently in the evaluative and potency dimensions.

3. The total sample perceived significant differences between the roles and viewed them all in a favorable manner. The role of nurse was viewed as the most favored followed by the gymnast, the athlete, the swimmer, the lawyer, and the shot putter.

4. Males and females perceived significant differences between the six roles. The males perceived the two most favored roles (nurse and gymnast) more positively

than the females. Males also viewed the two least favored roles (shot putter and lawyer) less favorably than the females.

5. Grade six, grade eleven, first year physical education, education, and vocational students perceived the six roles as being significantly different.

6. The subjects' psychological androgyny or their degree of sport involvement did not significantly affect the way in which they perceived the six female roles.

7. There was no significant relationship between the subjects' psychological androgyny and their degree of sport involvement.

CHAPTER V

DISCUSSION AND RECOMMENDATIONS

Discussion

This chapter will discuss the results of this study in terms of each of the seven research questions posed earlier:

Question One: Is there a significant difference in the perception the total sample has of six selected female roles?

The significant differences in the perceptions of the female roles were consistent with the findings of numerous researchers (Brown, 1965; Griffin, 1972; Hall, 1972; Berlin, 1973; LeGrand, 1975). Although all female roles were perceived favorably, it is obvious that stereotypes still exist concerning the acceptability of female roles and specifically female athletic roles. The nurse, a traditional female role, was considered to be the most favored and in keeping with feminine stereotypes, the least potent and the least active. On the other hand, the shot putter, a more acceptable male than female athletic role, was perceived as the least favored and the most potent. Similarly, the lawyer, a traditionally male role, was viewed, next to the shot putter, as the least favored. Therefore, it is obvious that even with expanding role choices for women, stereotypes still exist, thus making some roles, athletic or otherwise, more socially acceptable than others.

The favorable image of all female athletic roles, by the sample, certainly seems to indicate that Metheny's

interpretations of thirteen years ago do not apply today. This change in attitude could be accounted for by the fact that since Metheny's interpretations, there has been a tremendous increase in the amount of media coverage of female sports' involvement. Not only has the public been exposed to more female athletic competitions but also more varied types of female involvement. Thus, those socially acceptable sports for females of thirteen years ago do not seem to be relevant to our present society.

Question Two: How do males and females perceive these female roles?

The dimension mean scores, the profiles and the overall attitude scores all indicated that both males and females perceived the nurse as the most favored role followed by the gymnast, the athlete, the swimmer, the lawyer, and the shot putter. A close examination of the scores do, however, reveal some differences. Males evaluated the two most favored roles (nurse and gymnast) more positively than the females. On the other hand, the males also evaluated the two least favored roles (shot putter and lawyer) more negatively than did the females. Such findings would seem to indicate that males are more hesitant to accept female entry into traditionally male roles, and are more prone to maintain the status quo. Females, on the other hand, seem to understand the restrictive nature of traditional stereotypes and readily accept and support the influx of females into traditionally male roles.

This hesitant acceptance by males of female

infiltration into male roles was further illustrated by the results of the D-scores or generalized distance scores. Again, the males, more so than the females, consistently perceived a greater distance between each of the roles. This suggests that males see more incongruence between traditional and non-traditional female roles and consequently do not so readily accept and favor females who enter non-traditional roles.

Question Three: How do grade six, grade eleven, first year physical education, education, and vocational students perceive these selected female roles?

The education, vocational and grade eleven students all perceived the nurse and the gymnast as the most preferred or favored roles. The grade six students favored the role of swimmer first, then the nurse and gymnast. Although the differences in mean dimension scores between these three roles were minimal, the most favored perception of the swimmer by grade six students could be a result of the recent introduction of a swimming course in their school curriculum and of the Commonwealth Games educational materials, thus the favorable attitude towards the sport and its participants.

A different opinion was expressed by the physical education students who favored the gymnast the most, and then the nurse. Again, the difference was minimal but at the same time quite understandable, since sports and athletic roles are the focus of these students' careers and interests.

All groups, except the grade six students, perceived

the gymnast as the most favored of all the athletic roles. This does suggest that one may certainly question the relevancy of Metheny's (1964) interpretations to today's society. Metheny indicated that gymnastics was not an acceptable sport for female involvement, but the findings of this study certainly suggest otherwise. The fact that the gymnast was the most favored of all the athletic roles is not surprising. Female gymnasts are frequently seen on television and their overwhelming acceptance by the public is quite obvious.

Question Four: Is there a significant difference, by group, or, by sex, in the perception of these female roles?

A significant difference was found by group in the perception of the roles. This finding was in contrast with those of LeGrand (1975) who found no significant differences between her sample of grade nine, ten, eleven, and twelve students. Furthermore, Vickers (1976) did find significant differences between grade levels but her results showed that the grade ten students viewed the concepts "male", "male athlete", "female", "female athlete" more favorably than the grade seven and university students. The results of this study indicated that not only did the grade eleven students consistently view each role less favorably, they also saw the greatest distance between each of the roles. One must realize though, that it is difficult to compare findings when each study not only had different sample populations but also the concepts to which the subjects responded were different from one study to the next.

LeCrand's (1975) and Harres' (1968) results showed no significant difference by sex in the perception of roles, whereas this study did find a significant difference. Although a significant difference was found between how males and females perceived the roles, this difference was a matter of degree rather than a complete distinction. That is, both males and females perceived the roles in an identical order of role favorableness, role potentness, and role activeness, although the difference was found in the degree of their perceptions. For example, males viewed the two most favored roles (nurse and gymnast) more positively than females and furthermore, they perceived the two least favored roles (shot putter and lawyer) more negatively than the females. This indicated that perhaps males are more critical of female involvement in such a non-traditional role as lawyer, and in such a less acceptable female athletic role as shot putter, and clearly favor traditional or acceptable female roles, athletic or otherwise.

Question Five: Is there a significant relationship between the subjects' psychological androgyny and how they perceived these female roles?

Results of the analysis of variance showed that the subjects' psychological androgyny did not affect the way in which they perceived the female roles. This would indicate that stereotypes seem to transcend or pervade the subjects' androgynous, masculine, feminine, or undifferentiated orientation. Even those subjects with an androgynous personality, thus possessing an equal number of masculine

and feminine characteristics, did not perceive the roles in a non-stereotyped fashion.

Viola Klein (1950) felt that society needs stereotyped images for two reasons: 1) it is a means to simplify what otherwise might be very complex in nature, and 2) the stereotype is supposed to be like a mirror - it reflects the attitudes of others. Klein's beliefs of over twenty-five years ago still seem to hold true today. For even with the current re-appraisal of gender role stereotypes and the accompanying concern over their restrictive nature, stereotypes are far from being eliminated and thus they continue to pervade our society.

Question Six: Does the subjects' degree of sport involvement significantly affect their perception of these female roles?

Degree of sport involvement was not seen as a factor which significantly affected the perception of the female roles. Such a finding is in keeping with the results of studies by McCullough (1976) and Kingsley, Brown and Seibert (1977) which also did not reveal significant differences in perception by athletes or non-athletes. On the other hand, these results are in contrast with those of Berlin (1973) and Hall (1972) who found that non-athletes or non-participants showed more dissonance between the concepts "feminine woman" and "athletic woman" than did athletes or participants. The difference in results between this study and those of Berlin (1973) and Hall (1972) could be explained by the possible inadequacy of this study's instrument to

sufficiently measure sport involvement. To be more optimistic, it is suggested that due to society's recent, more extensive and varied exposure to female athletics and athletes, that regardless of the degree of sport involvement, all roles are viewed in a similarly favorable manner.

Question Seven: Is there a significant relationship between the subjects' psychological androgyny and their degree of sport involvement?

Results showed no significant relationship between the subjects' psychological androgyny and their degree of sport involvement. This finding indicated that psychological androgyny was not a factor which helped determine the subjects' degree of sport involvement. A study by Hall (1974) showed that the sport involvement of her sample of women from the United Kingdom and Canada was accounted for by such variables as the activity level when younger, the interests and participation of one's present family, and certain situational factors such as the complexity of a woman's life-cycle stage. It is obvious that a number of factors affect a person's degree of sport involvement, and further research needs to be undertaken to determine these variables.

In conclusion, although the results of this study showed the perception of all roles as being favorable, traditional stereotypes still exist. Traditional female roles and more acceptable athletic roles are clearly more favored by both sexes than non-traditional female roles and less acceptable athletic roles. Regardless of the current focus on women's rights and expanding role choices for women,

until all female roles, traditional or non-traditional, athletic or non-athletic, are equally favored and accepted, women will be hesitant to enter new areas of work and sport.

Summary

In summary, the purpose of this study was to determine how grade six, grade eleven, first year physical education, education, and vocational students perceived certain female social roles; and to ascertain whether their perceptions were associated with their sex, group, sport involvement or psychological androgyny.

The instruments used in this study were the semantic differential, the Bem Sex Role Inventory, and relevant questions on sport involvement from Kenyon and McPherson (1968), Hall (1974) and Richardson (1974). The semantic differential assessed the subjects' perceptions of the following roles: THE FEMALE ATHLETE, THE FEMALE GYMNAST, THE FEMALE NURSE, THE FEMALE SWIMMER, THE FEMALE LAWYER, and THE FEMALE SHOT PUTTER. Responses to the BSRI made it possible to classify each subject as androgynous, masculine, feminine, or undifferentiated; and responses to the questions on sport involvement placed the subjects into High, Moderate, Average or Low sport involvement groups.

The data analysis indicated that the sample perceived significant differences between the roles and viewed them all in a favorable manner. The role of nurse was perceived as the most favored followed by the gymnast, the athlete, the swimmer, the lawyer, and the shot putter. Significant

differences by sex, and, by group, were found in the perception of these roles. On the other hand, the subjects' psychological androgyny or their degree of sport involvement did not significantly affect the way in which they perceived the female roles. Furthermore, no significant relationship was found between the subjects' psychological androgyny and their degree of sport involvement.

Recommendations

Research involving the androgynous personality and its relationship with sport involvement has been minimal. Due to the recent push towards the eradication of stereotypes and concurrently, the advocation of an androgynyous personality, research which might shed some light on whether or not sport involvement is conducive to the development of an androgynous personality would thus be valuable.

Further study needs to be undertaken concerning the image of female athletic roles in relation to other female social roles. Both traditional and non-traditional female roles, rather than biologically ascribed roles, need to be examined. Samples should include children and adolescents so that the factor of age on the perception of roles may be examined.

Although the image of the female athlete has been an area of study for many researchers, further and more extensive study can be significant, for to learn how people perceive things and why they perceive the way they do, can only help us better understand our fellow human beings.

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APPENDIX A

SAMPLE COPY OF THE QUESTIONNAIRE

DEPARTMENT OF PHYSICAL EDUCATION
FACULTY OF PHYSICAL EDUCATION AND RECREATION

Dear Student,

I am seeking your cooperation in a research project. The survey for which I am soliciting your assistance is the basis for my Master's thesis.

Attached you will find a questionnaire which I would like you to complete. At first glance it may look rather extensive, but in actual fact it is relatively simple to answer and should not take too much of your time.

The same questionnaire is being given to a number of other students. From the responses I hope to reach some conclusions as to how students view female athletes.

When you complete the questionnaire, your responses will be coded and will not be associated with your individual identity at any stage of the computer analysis. I have given each questionnaire a reference number only to identify your responses as a member of a group.

Thank you very much for your cooperation.

Sincerely,

Donna J. Harrison

Donna J. Harrison

THE UNIVERSITY OF ALBERTA EDMONTON, CANADA T6G 2H9

PART ONE

INSTRUCTIONS

The purpose of these questions is to obtain some idea of your present and past involvement in sport.

Please try to answer each question as carefully as possible by placing an 'X' in the appropriate box.

Please check both sides of the page for questions.

Q1 In the two colums below are a series of physical activities. Check through the lists carefully and place an 'X' in the boxes beside those in which you have participated at least once during the past year.

General Sports

- ☐ Athletics (track or field)
- ☐ Billiards/Pool
- ☐ Croquet
- ☐ Golf
- ☐ Gymnastics
- ☐ Tennis
- ☐ Trampolining

Organised Team Games

- ☐ Baseball, Softball
- ☐ Basketball
- ☐ Team Handball
- ☐ Field Hockey
- ☐ Lacrosse
- ☐ Netball
- ☐ Soccer
- ☐ Volleyball

Indoor Activities

- ☐ Badminton
- ☐ Dancing (Social, Folk)
- ☐ Dancing (Ballet, Jazz)
- ☐ Judo
- ☐ Keep Fit Classes
- ☐ Paddleball/Racquetball
- ☐ Squash
- ☐ Table Tennis
- ☐ Five or Tenpin Bowling
- ☐ Yoga

Outdoor Activities

- ☐ Bicycling for exercise
- ☐ Fishing
- ☐ Hiking
- ☐ Horse Riding
- ☐ Jogging
- ☐ Cross-Country Running
- ☐ Walking for exercise
- ☐ Hunting (all kinds)
- ☐ Archery

Water Based Activities

- ☐ Aqua-lung Diving
- ☐ Boating
- ☐ Canoeing
- ☐ Sailing
- ☐ Swimming (sea or lake)
- ☐ Water Skiing
- ☐ Swimming (pools)
- ☐ Water Polo

Winter Activities

- ☐ Broomball
- ☐ Cross Country Skiing
- ☐ Downhill Skiing
- ☐ Ice Skating
- ☐ Ski-dooing
- ☐ Snowshoeing
- ☐ Ice Hockey
- ☐ Ringette

Are there any physical activities not mentioned on the previous page in which you have participated during the past year?
PLEASE INDICATE_____

Q2 From the activities checked in Q1 please indicate the four (4) in which you particpated most frequently...

Most popular _____
2nd _____
3rd _____
4th _____

Using the scales on the left, please print in the appropriate boxes the code numbers indicating (A) approximately HOW OFTEN you participated in each of the 4 activities listed above, and (B) HOW LONG you spent, on an average, each time.

(A) Frequency
1 = Every day
2 = At least 2 or 3 times a week
3 = Once a week or every weekend
4 = At least once or twice a month
5 = Less than once a month

Most popular activities

1st	2nd	3rd	4th
☐	☐	☐	☐

(B) Duration
1 = Over two hours
2 = Between one to two hours
3 = Between 30 minutes to one hour
4 = Less than 30 minutes

Most popular activities

1st	2nd	3rd	4th
☐	☐	☐	☐

Q3 Using the scale on the left, please print in the appropriate boxes the code numbers indicating at which level you performed or competed.

1 = Non-competitive (no contest involved)
2 = Recreational competition (e.g. in golf, a pick-up foursome)
3 = Organised competition at local level (e.g. tennis club championship)
4 = Organized competition beyond local level (e.g. provincial, regional)
5 = National or international competition

Most popular activities

1st	2nd	3rd	4th
☐	☐	☐	☐

Q4 How old are you? (in years) _____

Q5 If you are a university or college student, what year are you in? _____

If you are presently neither a college nor a university student, please check... ☐

PART TWO

INSTRUCTIONS

On the following pages there are several boxes which contain different ideas. Below the box are 15 different pairs of words. Mark these word pairs to show how you feel about the idea in the box.

EXAMPLE: The idea in the box is 'TEACHER'. Now you would go down to the first pair of words -- beautiful-ugly. How do you feel about teachers? If you think that they are very beautiful, you would put an 'X' like this:

beautiful __X__ : ____ : ____ : ____ : ____ : ____ : ____ : ugly

Or, if you think that they are very ugly, you would place an 'X' like this:

beautiful ____ : ____ : ____ : ____ : ____ : ____ : __X__ : ugly

If you think that teachers are pretty beautiful, but not very beautiful, you would put an 'X' like this:

beautiful ____ : __X__ : ____ : ____ : ____ : ____ : ____ : ugly

Or, if you think teachers are pretty ugly, you would put an 'X' like this:

beautiful ____ : ____ : ____ : ____ : ____ : __X__ : ____ : ugly

You may think that teachers are kind of beautiful. Then you would put an 'X' like this:

beautiful ____ : ____ : __X__ : ____ : ____ : ____ : ____ : ugly

Or, if you think that teachers are kind of ugly, you would put an 'X' like this:

beautiful ____ : ____ : ____ : ____ : __X__ : ____ : ____ : ugly

If you think that teachers are right in the middle, not really beautiful or not really ugly, then you would put an 'X' in the middle, like this:

beautiful ____ : ____ : ____ : __X__ : ____ : ____ : ____ : ugly

If the words just don't make any sense to you, put an 'X' in the middle. You will have only one 'X' on each line.

It is important for you to remember several things. First of all, put your 'X' right in the middle of the space -- not on top of the dots. Second, there are 15 pairs of words on each page, so you will have 15 'X's' on each page. Third, don't worry about the numbers under the spaces. They are just to help me later.

Remember to think about the idea in the box. Also think about each word pair by itself. Go fairly quickly and don't worry or think too long about any word pair. Mark the first think that comes into your mind, but don't be careless.

What does the item in the box mean to you?

THE FEMALE ATHLETE

As you proceed always be thinking about the item in the box.

beautiful	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	ugly
hard	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	soft
fast	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	slow
kind	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	cruel
heavy	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	light
loud	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	quiet
good	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	bad
strong	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	weak
still	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	moving
interesting	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	boring
masculine	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	feminine
cooperative	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	competitive
pleasant	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	unpleasant
powerful	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	powerless
dull	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	sharp

What does the item in the box mean to you?

THE FEMALE SWIMMER

As you proceed always be thinking about the item in the box.

beautiful	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	ugly
hard	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	soft
fast	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	slow
kind	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	cruel
heavy	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	light
loud	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	quiet
good	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	bad
strong	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	weak
still	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	moving
interesting	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	boring
masculine	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	feminine
cooperative	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	competitive
pleasant	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	unpleasant
powerful	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	powerless
dull	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	sharp

7

What does the item in the box mean to you?

THE FEMALE GYMNAST

As you proceed always be thinking about the item in the box.

beautiful	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	ugly
hard	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	soft
fast	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	slow
kind	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	cruel
heavy	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	light
loud	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	quiet
good	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	bad
strong	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	weak
still	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	moving
interesting	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	boring
masculine	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	feminine
cooperative	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	competitive
pleasant	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	unpleasant
powerful	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	powerless
dull	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	sharp

6

What does the item in the box mean to you?

THE FEMALE NURSE

As you proceed always be thinking about the item in the box.

beautiful	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	ugly
hard	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	soft
fast	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	slow
kind	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	cruel
heavy	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	light
loud	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	quiet
good	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	bad
strong	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	weak
still	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	moving
interesting	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	boring
masculine	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	feminine
cooperative	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	competitive
pleasant	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	unpleasant
powerful	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	powerless
dull	____ 1	____ 2	____ 3	____ 4	____ 5	____ 6	____ 7	sharp

What does the item in the box mean to you?

THE FEMALE SHOT PUTTER

As you proceed always be thinking about the item in the box.

beautiful ____1: ____2: ____3: ____4: ____5: ____6: ____7: ugly

hard ____1: ____2: ____3: ____4: ____5: ____6: ____7: soft

fast ____1: ____2: ____3: ____4: ____5: ____6: ____7: slow

kind ____1: ____2: ____3: ____4: ____5: ____6: ____7: cruel

heavy ____1: ____2: ____3: ____4: ____5: ____6: ____7: light

loud ____1: ____2: ____3: ____4: ____5: ____6: ____7: quiet

good ____1: ____2: ____3: ____4: ____5: ____6: ____7: bad

strong ____1: ____2: ____3: ____4: ____5: ____6: ____7: weak

still ____1: ____2: ____3: ____4: ____5: ____6: ____7: moving

interesting ____1: ____2: ____3: ____4: ____5: ____6: ____7: boring

masculine ____1: ____2: ____3: ____4: ____5: ____6: ____7: feminine

cooperative ____1: ____2: ____3: ____4: ____5: ____6: ____7: competitive

pleasant ____1: ____2: ____3: ____4: ____5: ____6: ____7: unpleasant

powerful ____1: ____2: ____3: ____4: ____5: ____6: ____7: powerless

dull ____1: ____2: ____3: ____4: ____5: ____6: ____7: sharp

8

What does the item in the box mean to you?

THE FEMALE LAWYER

As you proceed always be thinking about the item in the box.

beautiful	____: 1	____: 2	____: 3	____: 4	____: 5	____: 6	____: 7	: ugly
hard	____: 1	____: 2	____: 3	____: 4	____: 5	____: 6	____: 7	: soft
fast	____: 1	____: 2	____: 3	____: 4	____: 5	____: 6	____: 7	: slow
kind	____: 1	____: 2	____: 3	____: 4	____: 5	____: 6	____: 7	: cruel
heavy	____: 1	____: 2	____: 3	____: 4	____: 5	____: 6	____: 7	: light
loud	____: 1	____: 2	____: 3	____: 4	____: 5	____: 6	____: 7	: quiet
good	____: 1	____: 2	____: 3	____: 4	____: 5	____: 6	____: 7	: bad
strong	____: 1	____: 2	____: 3	____: 4	____: 5	____: 6	____: 7	: weak
still	____: 1	____: 2	____: 3	____: 4	____: 5	____: 6	____: 7	: moving
interesting	____: 1	____: 2	____: 3	____: 4	____: 5	____: 6	____: 7	: boring
masculine	____: 1	____: 2	____: 3	____: 4	____: 5	____: 6	____: 7	: feminine
cooperative	____: 1	____: 2	____: 3	____: 4	____: 5	____: 6	____: 7	: competitive
pleasant	____: 1	____: 2	____: 3	____: 4	____: 5	____: 6	____: 7	: unpleasant
powerful	____: 1	____: 2	____: 3	____: 4	____: 5	____: 6	____: 7	: powerless
dull	____: 1	____: 2	____: 3	____: 4	____: 5	____: 6	____: 7	: sharp

PART THREE

INSTRUCTIONS

Below you will find several words or phrases used to describe people. I would like to know how well you feel each word or phrase describes you. Indicate how true of you each word or phrase is by putting the appropriate number in the box according to the following scale:

1. Never or almost never true
2. Usually not true
3. Sometimes but infrequently true
4. Occasionally true
5. Often true
6. Usually true
7. Always or almost always true

EXAMPLE: Fun-loving	6
Self-reliant(relying on oneself)	
Yielding(giving up easily)	
Helpful	
Defends own beliefs	
Cheerful	
Moody(changing moods quickly)	
Independent(not needing others)	
Shy	
Conscientious(concerned about doing a good job)	
Athletic	
Affectionate(expressing feelings)	
Theatrical(dramatic)	
Assertive(stating one's rights)	
Flatterable(accepts compliments easily)	
Happy	
Strong personality	
Loyal(standing by one's friends)	
Unpredictable(not able to anticipate)	
Forceful(making your ideas known)	
Feminine	

Reliable(responsible)	
Analytical(thinking-figuring out problems)	
Sympathetic(warmhearted-concerned about others)	
Jealous	
Has leadership abilities	
Sensitive to the needs of others	
Truthful	
Willing to take risks (chances)	
Understanding	
Secretive(keep your thoughts to yourself)	
Make decisions easily	
Compassionate(feels sorrow for troubles of others)	
Sincere	
Self-sufficient(able to get along without help)	
Eager to soothe hurt feelings	
Conceited(having an exaggerated opinion of oneself)	
Dominant(controlling)	
Soft-spoken(speaking gently)	
Likable	
Masculine	
Warm	
Solemn(serious)	

Willing to take a stand	
Tender	
Friendly	
Aggressive(pushy)	
Gullible(believing easily)	
Inefficient(taking a long time to do something)	
Acts as a leader	
Childlike	
Adaptable(able to adjust to new situations)	
Individualistic(leading your life in your own way)	
Does not use harsh language	
Unsystematic(disorganized)	
Competitive	
Loves children	
Tactful(saying the right things)	
Ambitious(strong desire to get ahead)	
Gentle	
Conventional(usual-ordinary)	

APPENDIX B

VARIMAX ROTATED FACTOR MATRICES FOR EACH ROLE

VARIMAX ROTATED FACTOR MATRIX FOR 'THE FEMALE ATHLETE'

SCALE	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4
Evaluative Dimension				
Beautiful-Ugly	0.037	0.495	**0.978**	-0.077
Kind-Cruel	-0.117	0.169	0.119	**0.717**
Good-Bad	-0.254	**0.582**	0.052	0.280
Interesting-Boring	-0.186	**0.677**	0.006	0.123
Pleasant-Unpleasant	-0.172	**0.595**	0.158	0.440
Potency Dimension				
Soft-Hard	**0.375**	-0.039	0.327	0.120
Light-Heavy	0.140	0.135	**0.465**	0.055
Weak-Strong	**0.813**	-0.091	0.122	0.114
Feminine-Masculine	0.126	0.334	**0.398**	0.066
Powerless-Powerful	**0.638**	-0.298	0.166	-0.035
Activity Dimension				
Slow-Fast	**0.621**	-0.080	-0.000	-0.079
Quiet-Loud	0.034	0.177	**0.598**	0.033
Still-Moving	0.230	-0.108	**-0.363**	0.168
Cooperative-Competitive	0.204	-0.008	-0.033	**0.388**
Dull-Sharp	0.243	**-0.387**	-0.159	0.044

FACTOR	EIGENVALUE	PCT OF VAR	CUM PCT
1	2.79692	47.3	47.3
2	1.76873	29.9	77.3
3	0.82406	13.9	91.2
4	0.51951	8.8	100.0

VARIMAX ROTATED FACTOR MATRIX FOR 'THE FEMALE SWIMMER'

SCALE	FACTOR 1	FACTOR 2	FACTOR 3
Evaluative Dimension			
Beautiful-Ugly	0.429	-0.010	0.264
Kind-Cruel	0.680	0.118	0.230
Good-Bad	0.663	-0.210	-0.035
Interesting-Boring	0.734	-0.129	0.064
Pleasant-Unpleasant	0.787	0.003	0.100
Potency Dimension			
Soft-Hard	0.138	0.360	0.461
Light-Heavy	-0.032	-0.130	0.720
Weak-Strong	-0.102	0.770	0.249
Feminine-Masculine	0.209	0.102	0.475
Powerless-Powerful	-0.197	0.709	0.252
Activity Dimension			
Slow-Fast	-0.375	0.535	0.006
Quiet-Loud	0.145	0.188	0.513
Still-Moving	-0.188	0.512	-0.083
Cooperative-Competitive	0.117	0.392	0.030
Dull-Sharp	-0.447	0.188	-0.088

FACTOR	EIGENVALUE	PCT OF VAR	CUM PCT
1	3.15929	49.6	49.6
2	2.38568	37.5	87.1
3	0.82394	12.9	100.0

VARIMAX ROTATED FACTOR MATRIX FOR 'THE FEMALE NURSE'

SCALE	FACTOR 1	FACTOR 2	FACTOR 3
Evaluative Dimension			
Beautiful-Ugly	0.387	0.448	-0.124
Kind-Cruel	0.673	0.412	-0.081
Good- Bad	0.762	0.221	-0.216
Interesting-Boring	0.517	0.302	-0.492
Pleasant-Unpleasant	0.710	0.326	-0.242
Potency Dimension			
Soft-Hard	0.264	0.566	0.042
Light-Heavy	0.163	0.608	-0.023
Weak-Strong	-0.150	0.275	0.489
Feminine-Masculine	0.280	0.519	0.089
Powerless-Powerful	-0.074	0.318	0.559
Activity Dimension			
Slow-Fast	-0.308	-0.054	0.365
Quiet-Loud	0.386	0.461	0.002
Still-Moving	0.012	-0.125	0.572
Cooperative-Competitive	0.525	0.170	-0.085
Dull-Sharp	-0.334	-0.378	0.485

FACTOR	EIGENVALUE	PCT OF VAR	CUM PCT
1	4.59929	69.9	69.9
2	1.52873	23.2	93.2
3	0.44781	6.8	100.0

VARIMAX ROTATED FACTOR MATRIX FOR 'THE FEMALE GYMNAST'

SCALE	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4
Evaluative Dimension				
Beautiful-Ugly	-0.060	0.171	0.164	0.666
Kind-Cruel	0.103	0.640	-0.021	0.107
Good-Bad	-0.269	0.558	0.238	-0.015
Interesting-Boring	-0.405	0.534	0.045	0.368
Pleasant-Unpleasant	-0.068	0.748	0.015	0.092
Potency Dimension				
Soft-Hard	0.350	0.148	0.370	0.231
Light-Heavy	-0.159	0.035	0.615	0.094
Weak-Strong	0.673	-0.027	-0.046	0.005
Feminine-Masculine	0.089	-0.048	0.569	0.421
Powerless-Powerful	0.670	-0.042	0.013	0.004
Activity Dimension				
Slow-Fast	0.389	-0.323	-0.084	0.003
Quiet-Loud	-0.016	0.181	0.645	-0.056
Still-Moving	0.309	-0.088	-0.184	-0.173
Cooperative-Competitive	0.329	0.191	-0.429	-0.198
Dull-Sharp	0.398	-0.286	-0.055	-0.275

FACTOR	EIGENVALUE	PCT OF VAR	CUM PCT
1	2.92960	46.7	46.7
2	1.50493	24.0	70.7
3	1.28718	20.5	91.2
4	0.54887	8.8	100.0

VARIMAX ROTATED FACTOR MATRIX FOR 'THE FEMALE LAWYER'

SCALE	FACTOR 1	FACTOR 2	FACTOR 3
Evaluative Dimension			
Beautiful-Ugly	-0.219	0.195	0.527
Kind-Cruel	-0.228	0.723	0.098
Good-Bad	-0.455	0.453	0.039
Interesting-Boring	-0.596	0.339	0.128
Pleasant-Unpleasant	-0.413	0.653	0.075
Potency Dimension			
Soft-Hard	0.334	0.601	0.128
Light-Heavy	0.045	0.092	0.609
Weak-Strong	0.718	0.274	0.093
Feminine-Masculine	-0.012	0.352	0.297
Powerless-Powerful	0.560	0.067	-0.108
Activity Dimension			
Slow-Fast	0.560	0.067	-0.108
Quiet-Loud	0.122	0.499	0.152
Still-Moving	0.502	-0.160	-0.000
Cooperative-Competitive	0.069	0.393	-0.320
Dull-Sharp	0.477	-0.054	-0.312

FACTOR	EIGENVALUE	PCT OF VAR	CUM PCT
1	3.08395	51.8	51.8
2	2.03771	34.2	86.0
3	0.83258	14.0	100.0

VARIMAX ROTATED FACTOR MATRIX FOR 'THE FEMALE SHOT PUTTER'

SCALE	FACTOR 1	FACTOR 2	FACTOR 3
Evaluative Dimension			
Beautiful-Ugly	0.623	0.418	-0.122
Kind-Cruel	0.701	0.293	0.060
Good-Bad	0.617	0.036	-0.041
Interesting-Boring	0.732	0.183	-0.299
Pleasant-Unpleasant	0.865	0.148	0.028
Potency Dimension			
Soft-Hard	0.289	0.639	0.053
Light-Heavy	0.223	0.771	-0.173
Weak-Strong	0.034	0.664	-0.008
Feminine-Masculine	0.295	0.488	-0.307
Powerless-Powerful	-0.053	0.563	0.235
Activity Dimension			
Slow-Fast	-0.416	-0.161	0.475
Quiet-Loud	0.315	0.436	-0.054
Still-Moving	-0.009	0.087	0.540
Cooperative-Competitive	0.282	0.353	0.245
Dull-Sharp	-0.615	-0.087	0.417

FACTOR	EIGENVALUE	PCT OF VAR	CUM PCT
1	4.88645	67.7	67.7
2	1.57302	21.8	89.5
3	0.75755	10.5	100.0

APPENDIX C

MEAN SCALE SCORES FOR EACH ROLE FOR MALES AND FEMALES

MEAN SCALE SCORES OF EACH ROLE FOR MALES AND FEMALES*

MALES

Evaluative

Beautiful-Ugly		Kind-Cruel		Good-Bad		Interesting-Boring		Pleasant-Unpleasant	
N	2.38	N	2.24	GYM	2.30	GYM	2.35	N	2.16
GYM	2.53	FA	3.05	N	2.33	N	2.49	FA	2.75
SW	2.71	GYM	3.13	SW	2.66	FA	2.65	GYM	2.76
FA	2.83	SW	3.21	FA	2.69	SW	2.73	SW	2.86
LAW	3.24	LAW	4.00	LAW	3.02	LAW	3.14	LAW	3.51
SP	5.07	SP	4.10	SP	3.38	SP	4.15	SP	3.81

Potency

Soft-Hard		Light-Heavy		Weak-Strong		Feminine-Masculine		Powerless-Powerful	
N	2.83	GYM	1.98	N	4.23	N	2.42	N	3.99
GYM	3.95	N	3.06	LAW	4.56	GYM	3.04	LAW	4.50
FA	4.31	FA	3.31	FA	5.06	FA	3.34	FA	4.82
SW	4.31	SW	3.33	SW	5.61	LAW	3.51	SW	5.34
LAW	5.03	LAW	3.58	GYM	5.94	SW	3.57	GYM	5.38
SP	5.75	SP	5.79	SP	6.45	SP	5.46	SP	5.94

* The roles are abbreviated as follows: female athlete = FA; female swimmer = SW; female nurse = N; female gymnast = GYM; female lawyer = LAW; and female shot putter = SP.

Activity

Slow-Fast		Quiet-Loud		Still-Moving		Cooperative-Competitive		Dull-Sharp	
SP	3.39	GYM	2.96	LAW	4.40	N	2.37	SP	4.01
N	4.38	N	3.37	SP	4.54	LAW	4.43	SW	5.18
LAW	4.74	SW	3.66	N	4.90	FA	4.91	FA	5.40
FA	5.14	FA	4.06	FA	5.32	SW	5.19	GYM	5.41
SW	5.73	SP	5.08	SW	5.58	SP	5.50	N	5.45
GYM	5.98	LAW	5.25	GYM	6.04	GYM	5.54	LAW	5.90

FEMALES

Evaluative

Beautiful-Ugly		Kind-Cruel		Good-Bad		Interesting-Boring		Pleasant-Unpleasant	
GYM	2.64	N	2.20	N	2.30	LAW	2.34	N	2.30
N	2.83	SW	2.94	SW	2.48	FA	2.35	SW	2.73
FA	2.99	FA	2.95	FA	2.52	GYM	2.36	GYM	2.77
LAW	3.24	GYM	2.98	GYM	2.57	SW	2.68	FA	2.83
SW	3.27	LAW	3.38	LAW	2.86	N	2.90	LAW	3.11
SP	4.25	SP	3.61	SP	3.15	SP	3.59	SP	3.46

Potency

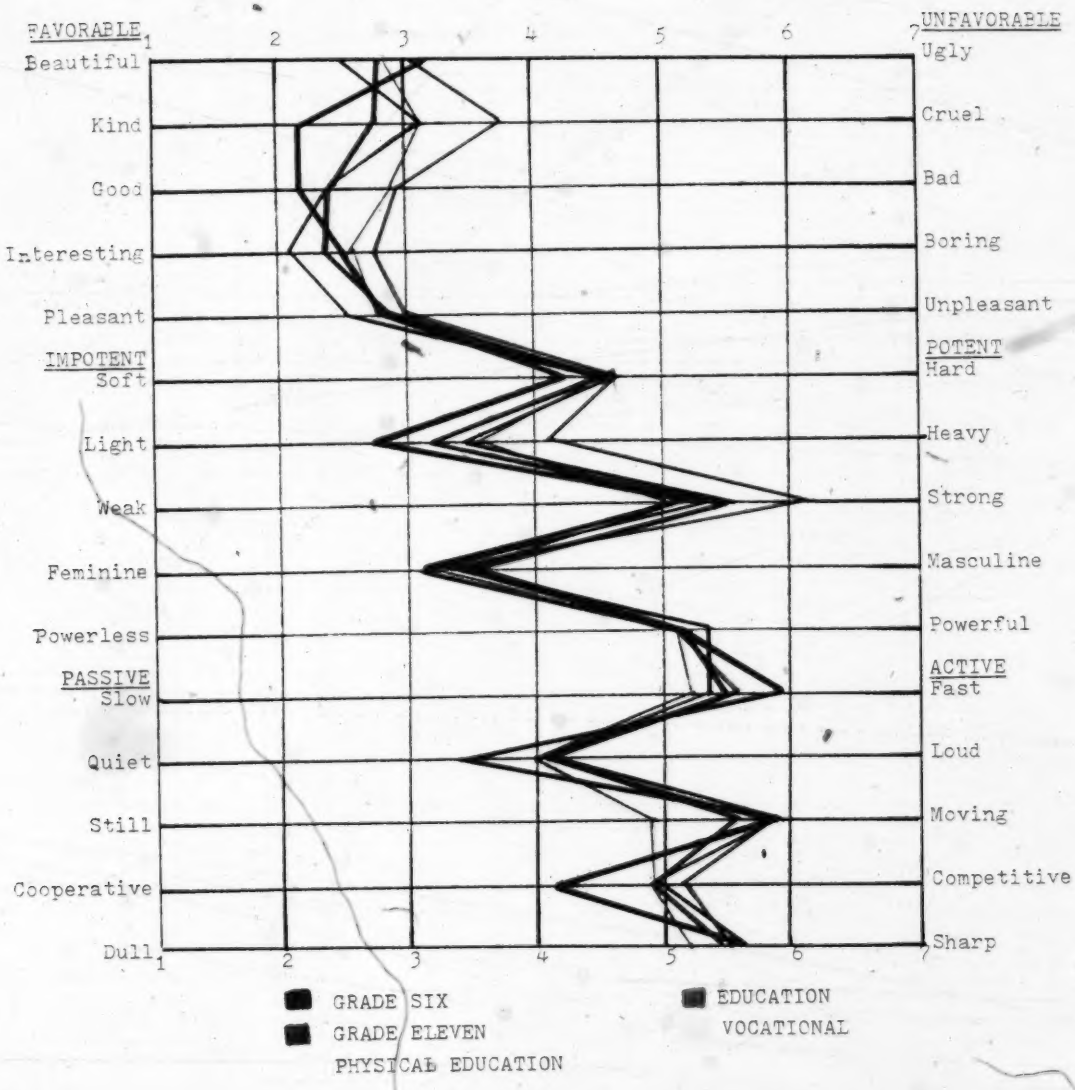
Soft-Hard		Light-Heavy		Weak-Strong		Feminine-Masculine		Powerless-Powerful	
N	2.84	GYM	2.31	N	4.65	N	2.24	N	4.53
GYM	4.29	N	3.31	LAW	5.14	GYM	2.86	LAW	5.45
FA	4.72	FA	3.58	FA	5.85	LAW	3.39	FA	5.59
SW	4.77	SW	3.59	GYM	6.21	FA	3.41	GYM	5.79
LAW	5.02	LAW	3.77	SW	6.28	SW	3.62	SW	5.94
SP	5.83	SP	5.65	SP	6.40	SP	4.93	SP	6.29

Activity

Slow-Fast		Quiet-Loud		Still-Moving		Cooperative-Competitive		Dull Sharp	
SP	4.42	N	3.15	SP	4.61	N	2.40	SP	4.54
N	4.50	GYM	3.18	LAW	4.77	LAW	4.35	N	5.38
LAW	5.17	SW	3.84	N	4.89	FA	4.76	SW	5.39
GYM	5.72	FA	3.87	FA	5.98	SP	4.82	FA	5.47
FA	5.95	SP	4.82	GYM	6.02	SW	5.02	GYM	5.49
SW	6.22	LAW	4.93	SW	6.07	GYM	5.27	LAW	6.09

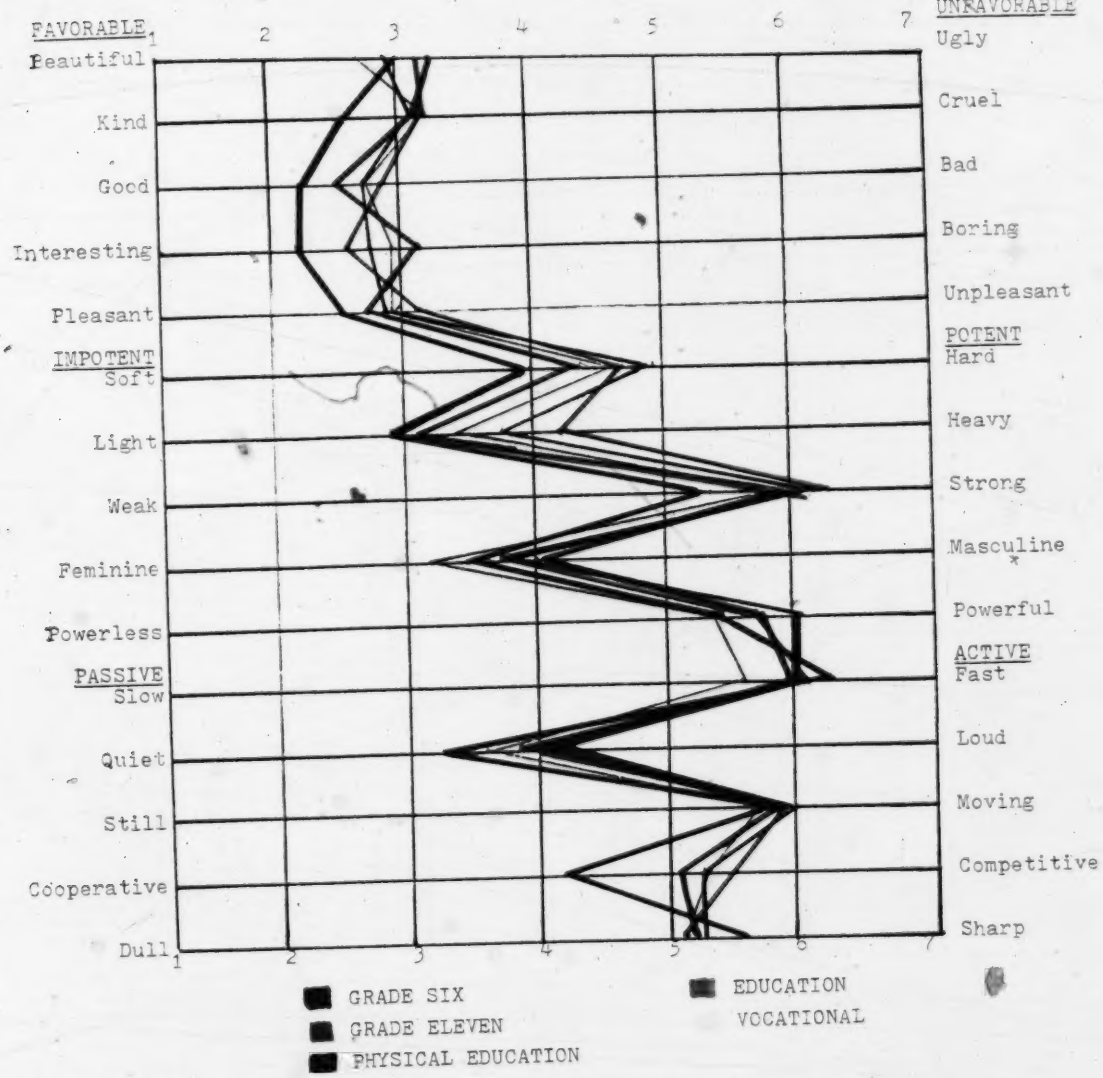
APPENDIX D

PROFILES OF EACH ROLE AS PERCEIVED BY EACH GROUP



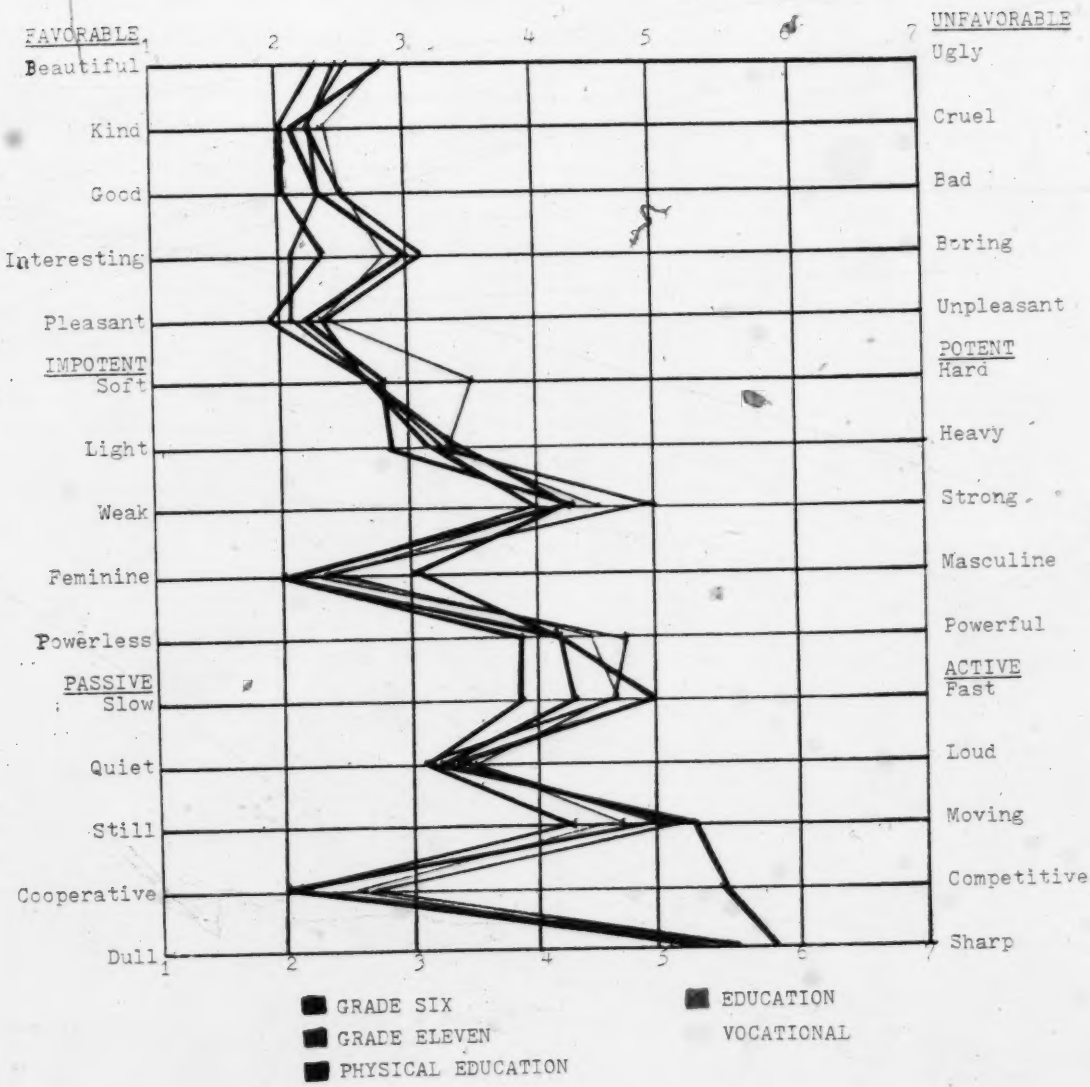
D1

PROFILE OF THE FEMALE ATHLETE AS PERCEIVED BY EACH GROUP



D2

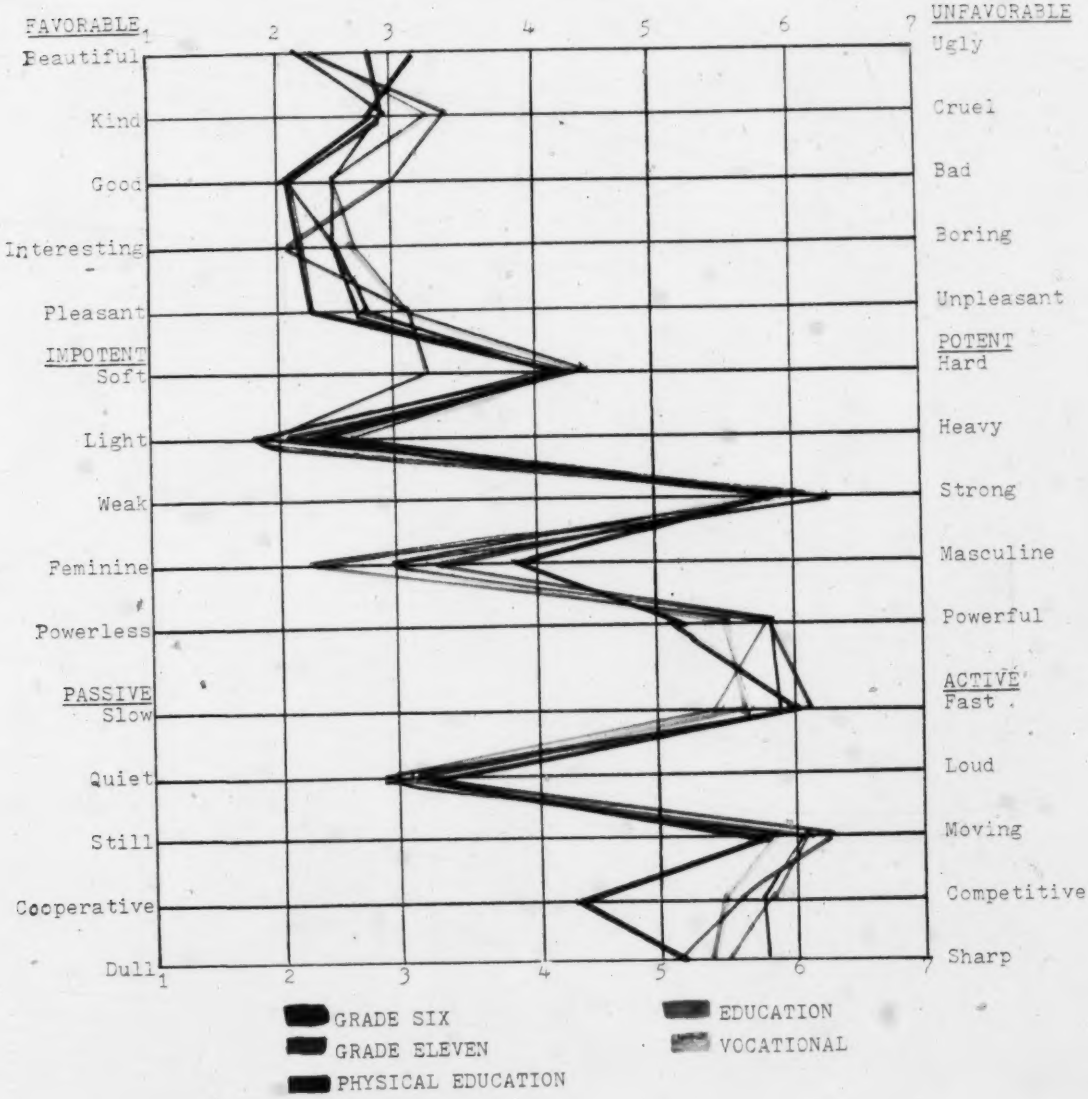
PROFILE OF THE FEMALE SWIMMER AS PERCEIVED BY EACH GROUP



D3

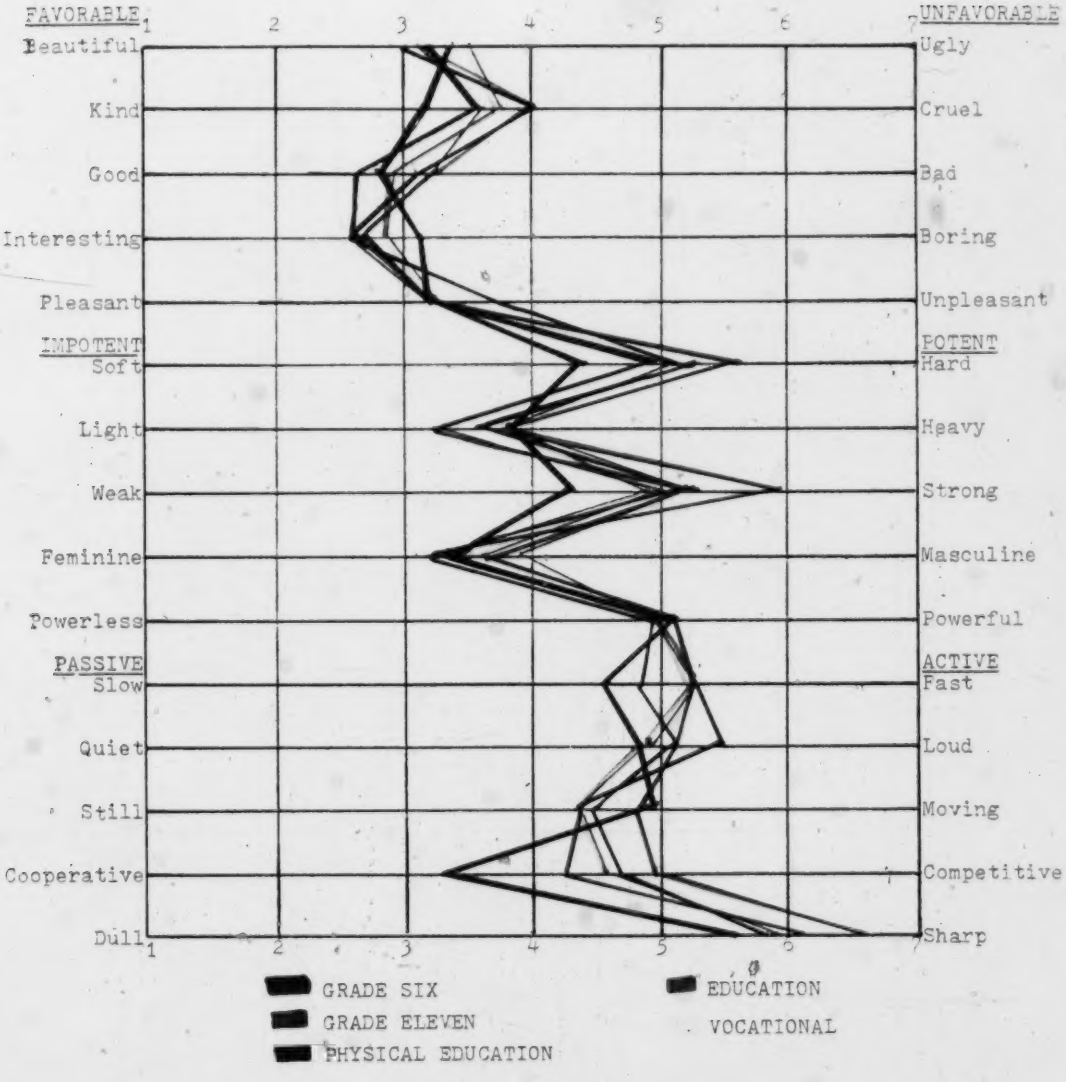
PROFILE OF THE FEMALE NURSE AS PERCEIVED

BY EACH GROUP



D4

PROFILE OF THE FEMALE GYMNAST AS PERCEIVED BY EACH GROUP

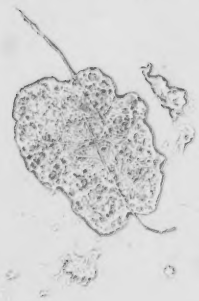


D5

PROFILE OF THE FEMALE LAWYER AS PERCEIVED BY EACH GROUP

APPENDIX E

D-SCORES FOR EACH GROUP



D-SCORES FOR EACH GROUP

Grade Six

	ATHLETE	SWIMMER	NURSE	GYMNAST	LAWYER	SHOT PUTTER
ATHLETE	-	5.62	7.72	6.52	7.70	7.26
SWIMMER		-	7.55	5.63	7.66	7.18
NURSE			-	7.48	7.52	8.65
GYMNAST				-	7.38	6.95
LAWYER					-	7.54
SHOT PUTTER						-

Grade Eleven

	ATHLETE	SWIMMER	NURSE	GYMNAST	LAWYER	SHOT PUTTER
ATHLETE	-	5.81	8.24	6.60	7.27	10.08
SWIMMER		-	8.49	6.37	7.61	9.66
NURSE			-	8.46	7.97	12.76
GYMNAST				-	8.34	10.89
LAWYER					-	9.80
SHOT PUTTER						-

D-SCORES FOR EACH GROUP (CONT'D)

Physical Education

	ATHLETE	SWIMMER	NURSE	GYMNAST	LAWYER	SHOT PUTTER
ATHLETE	-	4.54	7.29	5.54	6.27	7.92
SWIMMER		-	8.33	5.48	6.47	7.72
NURSE			-	8.00	7.72	10.42
GYMNAST				-	7.32	9.45
LAWYER					-	8.15
SHOT PUTTER						-

Education

	ATHLETE	SWIMMER	NURSE	GYMNAST	LAWYER	SHOT PUTTER
ATHLETE	-	4.59	7.49	6.00	6.26	6.67
SWIMMER		-	7.51	6.05	6.28	6.60
NURSE			-	7.17	7.75	9.61
GYMNAST				-	7.19	8.41
LAWYER					-	6.80
SHOT PUTTER						-

D-SCORES FOR EACH GROUP (CONT'D)

Vocational

	ATHLETE	SWIMMER	NURSE	GYMNAST	LAWYER	SHOT PUTTER
ATHLETE	-	4.50	6.32	5.65	5.68	6.72
SWIMMER		-	6.71	4.74	5.91	6.78
NURSE			-	7.06	6.48	8.41
GYMNAST				-	6.46	7.67
LAWYER					-	6.65
SHOT PUTTER						-